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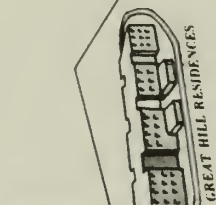
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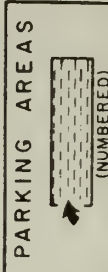
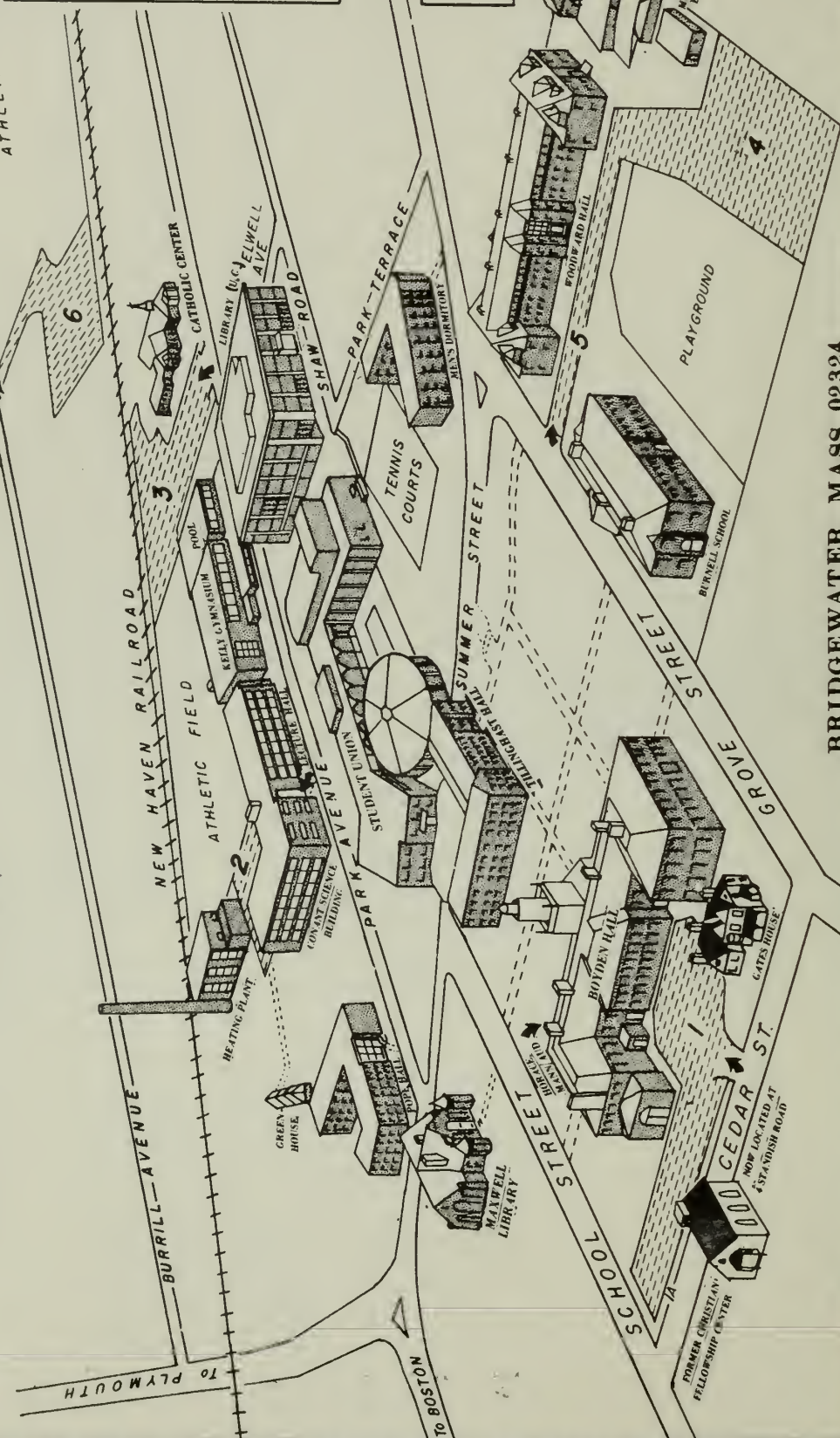
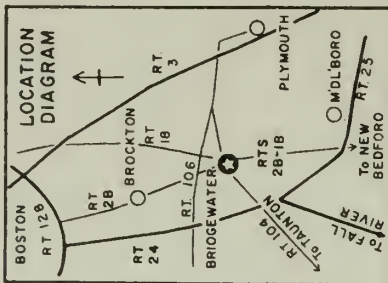
THE COMMONWEALTH OF MASSACHUSETTS



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ATHLETIC FIELDS



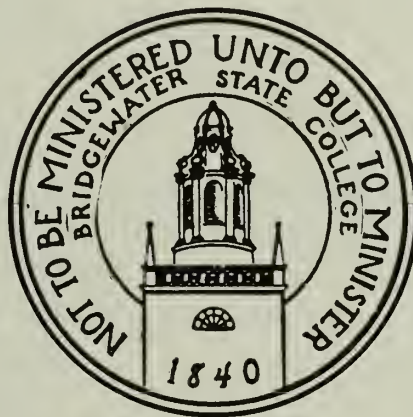
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BRIDGEWATER, MASS. 02324

H. F. HIRT, 1967, 1969

For further information write to: Director of Admissions
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BRIDGEWATER STATE COLLEGE



Series 4, Volumn 6, Number 1

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DIVISION OF STATE COLLEGES



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ACADEMIC CALENDAR 1969 – 1970

FIRST SEMESTER

September 2, 1969	Registration - Seniors
September 3, 1969	Administrative Faculty Meeting General Faculty Meeting Department Meetings Registration - Juniors
September 4, 1969	Registration - Sophomores
September 5, 1969	Registration - Freshmen
September 8, 1969	Opening of Academic Year - Classes Begin
September 16, 1969	Convocation (Third Hour)
October 13, 1969	Columbus Day - No Classes
October 31, 1969	End of First Quarter
November 11, 1969	Veteran's Day - No Classes
November 26, 1969	Thanksgiving Recess - Classes Suspend at Noon
December 1, 1969	Classes Resume at 8:00 A.M.
December 19, 1969	Christmas Recess - Classes Suspend at 5:00 P.M.
January 5, 1970	Reading Day - No Classes
January 6, 1970	First Semester Examinations Begin at 8:30 A.M.
January 15, 1970	First Semester Examinations End at 5:00 P.M.
January 16, 1970	Intersemester Holiday

SECOND SEMESTER

January 19, 1970	Registration - Seniors
January 20, 1970	Registration - Juniors
January 21, 1970	Registration - Sophomores
January 22, 1970	Registration - Freshmen
January 26, 1970	Second Semester - Classes Resume at 8:00 A.M.
February 16, 1970	Washington's Birthday - No Classes
March 20, 1970	End of Third Quarter - Classes Suspend at 5:00 P.M. - Spring Recess Begins

March 30, 1970 Classes Resume at 8:00 A.M.
April 20, 1970 Patriot's Day - No Classes
May 12, 1970 Honors Convocation (Fourth Hour)
May 15, 1970 Classes Suspend at 5:00 P.M.
May 18, 1970 Reading Day - No Classes
May 19, 1970 to May 26, 1970 Senior Examinations.
May 19, 1970 to May 29, 1970 Freshman, Sophomore & Junior
Examinations
May 25, 1970 Memorial Day - No Examinations
May 29, 1970 Close of Academic Year
May 31, 1970 Commencement Day

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- Maurice Rotstein, B.S. (City College of New York), M.A., Ph.D.
(New York University), Associate Professor of History
- Marjorie Atwood Rugen, B.S. (Boston University), M.A. (New York
University), Instructor in Physical Education for Women
- Ignatius Philip Scalisi, B.S., M.S. (Northeastern University), Assis-
tant Professor of Mathematics
- Harold Paul Schaefer, Jr., B.A. (University of Connecticut), In-
structor in Biology
- Louis Schippers, A.B. (Phillips University), B.D. (Texas Christian
University), Assistant Professor of Psychology
- Hazel LaRochelle Schopp, B.S. (State Teacher's College at Hyannis),
M.Ed. (Bridgewater State College), Instructor in Physical Edu-
cation for Women
- James Rudolph Scroggs, A.B. (Northeastern University), B.D. (Har-
vard Divinity School), Ph.D. (Boston University), Assistant
Professor of Psychology
- Enrique Serrano, LL.B. (University of Oviedo), LL.M., Ph.D.
(University of Madrid), Associate Professor of Spanish
- Mary Cingolani Shapiro, B.S. (Bridgewater State College), M.A.
(DePaul University), Assistant Professor of French

- Ellen Marie Shea, B.S. (Bridgewater State College), M.Ed. (Boston University), Ph.D. (University of Connecticut), Professor of Education, Dean of Students, Dean of Women
- Samuel Norman Sheinfeld, A.B., Ed.M., A.M., Ed.D. (Harvard University), Professor of English
- Robert J. Silbernagel, B.A., M.A. (Boston College), Instructor in English
- Philip Thomas Silvia, Jr., B.A. (Providence College), M.A. (Fordham University), Instructor in History
- Donald Clayton Simpson, B.Ed. (Keene Teachers College), M.S. (Clarkson College of Technology), M.A. (Rutgers State University), Assistant Professor of Mathematics
- Johanne Smith, B.S. (East Stroudsburg State College), M.S. (University of Illinois), Instructor in Physical Education for Women
- Leonard Solomon, B.A. (City College of New York), M.A. (Cornell University), Visiting Lecturer in Astronomy
- Margaret Borden Souza, B.S. (Bridgewater State College), M.S. (Boston College), Associate Professor of Chemistry
- Benjamin Arthur Spence, B.S. (Bridgewater State College), M.A. (University of Wisconsin), Associate Professor of History
- Jean Frances Stonehouse, B.A. (Bridgewater State College), M.A. (Boston University), Instructor in History
- Robert Francis Sutherland, A.B. (Stonehill College), M.S. (University of Missouri at Kansas City), Instructor in Mathematics
- Edward Carl Swenson, B.S. (Boston College), M.Ed. (Boston University), Associate Professor of Physical Education for Men
- Doris Emma Tebbetts, B.S. (Massachusetts College of Art), M.A. (University of Minnesota), Associate Professor of Art and Chairman of the Department of Art
- Abraham Vazhayil Thomas, B.A., M.A. (University of Madras, India), S.T.M. (Union Theological Seminary), Th.D. (Boston University), Assistant Professor of Sociology
- Mary Lou Thornburg, B.S. (Wisconsin State University at LaCrosse), M.S. (University of North Carolina at Greensboro), Ph.D. (University of Iowa), Associate Professor of Physical Education for Women
- Gerald Joseph Thornell, B.A. (Curry College), M.S. (Central Connecticut College), Instructor in Education

- Phyllis Brooks Toback, A.B. (Barnard College), M.A. (New York University), Instructor of English
- Sharon Tufts, B.S. (Bridgewater State College), M.S.P.E. (University of North Carolina), Ph.D. (University of Iowa), Assistant Professor of Physical Education for Women
- Cora May Vining, B.S. (Bridgewater State College), A.M. (Boston University), B.S. (Simmons College), Associate Professor of Library Science
- Claire Mary Walker, B.S. (Bridgewater State College), M.S.Ed. (Northeastern University), Instructor in Education
- William James Wall, Jr., B.S., M.S. (University of Massachusetts), Ph.D. (University of California), Professor of Zoology
- Robert F. Ward, B.S. (Bridgewater State College), M.Ed. (Boston University), Instructor in Instructional Media
- Richard J. Warye, B.S., M.A., Ph.D. (Ohio State University), Assistant Professor of Speech and Theatre
- Tom G. Watson, B.A. (Baptist University), M.A. (University of Arkansas), Assistant Professor of English
- Dorothy Wertz, A.B. (Radcliffe College), A.M., Ph.D., (Harvard University), Assistant Professor of Anthropology and Sociology
- George Alexander Weygand, B.S., M.Ed. (Bridgewater State College), Ed.D. (Harvard University), Professor of Physics
- Alfred Wolff, A.B. (College of William and Mary), M.A. (University of Virginia), Instructor of History
- Carol Ann Wolfgram, B.S. (Wisconsin State College), M.A. (Colorado State College), Instructor in Physical Education for Women
- Clifford Arthur Wood, B.S. (Bridgewater State College), M.A.T. (Brown University), Assistant Professor of English
- Dorothy Sherman Wood, B.S. (Bridgewater State College), M.Ed. (Boston University), Associate Professor of Education
- Vincent James Worden, B.S. (Worcester State College), M.Ed. (Loyola College), Assistant Professor of Education
- Lynne Yeamans, B.S. (Bridgewater State College), M.S. (Smith College), Instructor in Physical Education for Women
- Joseph A. Yeskewicz, B.S. (Springfield College), M.Ed. (University of Massachusetts), Instructor in Health and Physical Education for Men

Richard Yin, B.A. (Chengchi University, Taiwan), M.A. (Brigham Young University), Instructor in Political Science

Joseph Bernard Yokelson, B.A. (Brooklyn College), M.A., Ph.D. (Brown University), Associate Professor of English

John Raymond ZuWallack, B.A. (University of Connecticut), M.S. (Southern Connecticut State College), Instructor in Education

LABORATORY INSTRUCTORS

Richard C. Benton, B.A. (Bridgewater State College), Laboratory Instructor in Chemistry

Robert Warner Clark, B.S. (Bridgewater State College), Laboratory Instructor in Biology

Leslie Theodore Malmgren, B.A. (Bridgewater State College), Laboratory Instructor in Biology

Richard James Olsen, B.A. (Bridgewater State College), Laboratory Instructor in Biology

Linda B. Stafford, B.S., M.Ed. (Bridgewater State College), Laboratory Instructor in Chemistry

Marcia A. Webb, B.A. (Bridgewater State College), Laboratory Instructor in Physics

BURNELL SCHOOL FACULTY

Doris Margaret Sprague, B.S., M.Ed. (Bridgewater State College), Associate Professor of Education and Principal

Marian Claire Doyle, B.S., M.S. (State University of New York, College at Potsdam), Assistant Professor of Education

Mary Carroll Doyle, B.S., M.Ed. (Bridgewater State College), Instructor of Education

Ruth Mary Gamson, B.S., M.Ed. (Bridgewater State College), Associate Professor of Education

Elizabeth Maynard Higgins, B.S. (Bridgewater State College), M.Ed. (Boston University), Instructor of Education

Margaret Therese Joyce, B.S., M.Ed. (Bridgewater State College), Instructor of Education

Richard Mitchell Menice, B.S. (Bridgewater State College), M.Ed. (Northeastern University), Instructor of Education

Marion Emma Nelson, B.S., M.Ed. (Bridgewater State College), Instructor of Education

Betty Ann Noyes, B.S., M.Ed. (Bridgewater State College), Instructor of Education

Wayne Richard Phillips, B.S. (Bridgewater State College), M.A. (University of Connecticut), Instructor of Education

Barbara Freeman Poe'Sepp, B.S., M.Ed. (Bridgewater State College), Assistant Professor of Education

Ellen Bolin Rucker, B.S. (Massachusetts State College at Hyannis), M.Ed. (Bridgewater State College), Instructor of Education

Margaret Mary Wallace, A.B., M.S. (Hunter College), Instructor of Education

Eugenia B. Watson, B.S. in Ed. (A & T College), M.Ed. (Bridgewater State College), Instructor of Education

Priscilla Lucas Chapman, B.S. (Bridgewater State College), Laboratory Instructor in Education

Dianne Van Putten, B.S. (Bridgewater State College), Burnell School Librarian

THE BRIDGEWATER PURPOSE

Bridgewater State College shares the national tradition of providing high quality education supported in large part by the State. Serving qualified students throughout the Commonwealth and particularly those living in the southeastern area, this college is committed to encouraging the broad educational preparation which is equally essential for making a maximum contribution to profession, community, and nation, and for developing a sound personal life. While maintaining its historical concern for preparing teachers, Bridgewater also dedicates itself to the education of students who may be interested in other vocations and professions.

Bridgewater strives to provide an atmosphere of integrity, justice, and social concern and to develop within the student a self-discipline which will be evident beyond the classroom. In addition to stimulating his intellectual curiosity, Bridgewater State College also provides the student with the opportunity to understand and appreciate the major contributions to man's knowledge of himself and of the physical and social world in which he lives.

Bridgewater offers programs leading to the degree of Bachelor of Arts, and to the degree of Bachelor of Science in Education. Both programs provide a general academic background as the foundation for specialization in major fields, including that of teaching. The Bachelor of Arts program seeks to prepare the student further in the specific methods, techniques, and knowledge of one of the following fields of concentration: biology, chemistry, chemistry-geology, physics, geography, earth science, English, French, history and political science, and mathematics. The program leading to the Bachelor of Science in Education is designed to prepare teachers of elementary education and women teachers of health and physical education.

HISTORY OF THE COLLEGE

The second quarter of the nineteenth century was a period of tremendous political and intellectual growth in the United States. The movements toward more popular government, the extension of the franchise, and the "rise of the common man" were reflected in the need for better public schools and better trained teachers.

In Massachusetts, men like James G. Carter of Lancaster, who wrote extensively of the need for reform in public education, the Reverend Charles Brooks of Hingham, who had studied Prussian teacher-training institutions and who hoped to establish similar schools here, and the Honorable Edward Dwight of Boston, who offered to give \$10,000 for preparing qualified teachers for our common schools on condition that the General Court should match this gift, were leaders in the educational activities of the 1830's. With their encouragement, Horace Mann, a brilliant Boston lawyer who had sacrificed his extensive practice to accept the position of

Secretary of the Massachusetts Board of Education in 1837 and who was a firm believer in the need for "trained teachers for every child," persuaded the General Court to establish three normal schools for the training of teachers on a three-year trial basis. The first of these schools opened in Lexington on July 3, 1839, was later moved to West Newton, and finally to Framingham. The second, which opened on September 4, 1839 at Barre, was later moved to Westfield.

Bridgewater began its career on September 9, 1840 in the old Town Hall under the distinguished sponsorship of such citizens of Plymouth County as ex-President John Quincy Adams, Senator Daniel Webster, and the Honorable Artemus Hale. Mr. Nicholas Tillinghast, a graduate and former instructor at West Point Military Academy, was principal. Twenty-eight students, seven men, and twenty-one women, were admitted to the first class. Six years later the first building to be erected specifically for normal school work in America was built at Bridgewater. "Coiled up in this institution as in a spring," said Horace Mann at the dedication of this building, "there is a vigor whose uncoiling may wheel the spheres."

Under incredible odds, Mr. Tillinghast labored for thirteen years. When he retired, the school was no longer an experiment, but a well-established part of the state's educational system. A number of Mr. Tillinghast's students took the lead in establishing normal schools in other states from Rhode Island to Illinois and Missouri.

Marshall Conant, the second principal (1853-1860), brought to the normal school the fruit of years of teaching in academies in Vermont, New Hampshire, Illinois, and Massachusetts. Under his leadership changes were made in the curriculum, especially in the enrichment of offerings in history and the sciences.

Albert Gardner Boyden, the third principal (1860-1906) who had been a student of Tillinghast and a teacher under Tillinghast and Conant, brought to Bridgewater the new psychological influence in education and instituted a period of growth and development that was continued by his son and successor, Arthur Clark Boyden (1906-1933). Bridgewater and Boyden were almost synonymous for three-quarters of a century. Under the Boydens, Bridgewater drew students from all over the United States, Europe, Latin America, Japan, and Burma. Teacher-training institutions in Armenia and Japan in particular owe their establishment and development to Bridgewater graduates of this period.

In 1921 a legislative act empowered the normal schools to award the Bachelor of Science in Education Degree to any person completing a four-year course in a normal school, and Bridgewater was one of the five state normal schools which granted the degree. In 1932, by act of the General Court, Bridgewater, together with the other state normal schools became a State Teachers College and in 1960 by another legislative act the Massachusetts teachers colleges be-

came state colleges. These changes which brought the teacher training institutions of Massachusetts into line with other similar institutions gave them added prestige and has enabled them to expand the curriculum offerings to make possible the granting of the B. A. degree as well as the degree of B. S. in Education.

The fall of 1937 saw the opening of the Graduate School. At the present time the Graduate School offers programs leading to the Master of Arts in Biology and in History, and to the Master of Education in Elementary Education, Elementary School Mathematics, Guidance, Instructional Media, Health Education, Reading, School Administration, School Librarianship, Special Education, and Secondary Education with twelve areas of concentration.

The Division of Continuing Studies offers courses during the afternoon and evening for teachers in service, and for any interested adults desiring to continue their education. Most graduate students take their courses in this division. An organized program of studies is offered by this division during the summer both at Bridgewater and at Hyannis.

A disastrous fire completely destroyed three of the main buildings on the Bridgewater campus, the main classroom building, Tillinghast Dormitory, and the old Woodward Dormitory on December 10, 1924. The only buildings saved were Normal Hall, now Woodward Hall, and the boiler plant. The efforts of a dedicated core of faculty members enabled the school to continue in temporary quarters, and new buildings were dedicated on October 22, 1926.

Since World War II Bridgewater has undergone remarkable expansion in building, student enrollment, and size of faculty, and there are plans providing for the continuation of this growth through the next decade. The standards set by the early leaders have been maintained, and Bridgewater today retains the spirit exemplified by its motto "Not to be ministered unto but to minister."

The first administrative heads at Bridgewater were "heirs on the spot" of a well understood policy. This unbroken line of succession led to an unusual growth and expansion. Each of the succeeding presidents, Dr. Zenos Scott (1933-1937), Dr. John Kelly (1937-1951), Dr. Clement C. Maxwell (1952-1962), and Dr. Adrian Rondileau (1962-) has brought to Bridgewater the particular type of leadership that was needed during his administration, thus endowing the college with a marvelous continuity of development.

During the academic year 1965-66 the college celebrated its 125th anniversary. No better tribute to Alma Mater's growth from an experimental teacher-training institution to a fully accredited, internationally recognized multipurpose institution can be found than the words of Albert Gardner Boyden who said years ago, "Thank God for the Bridgewater Spirit of progress, of enlargement of culture, of devotion, of service, of inspiration which has quickened so many thousands of young lives. It has been the animus of the institution from its very beginning and is marching on to multiply its achievement."

ADMISSION

The selection of students who have the ability and preparation and who will most likely be successful in college studies is the basic aim of the admission requirements.

REQUIREMENTS

Each candidate is considered on the basis of the following requirements:

- A. Secondary school preparation. Candidates for admission must have a high school diploma from an accredited secondary school or equivalent preparation. The high school record must certify completion of sixteen units (representing the study of a subject four or five periods a week for a full school year) accepted by the high school in fulfillment of graduation requirements, or the candidate must present evidence of equivalent preparation.

The 16 high school units must include

English (including Grade XII)	4 units
American History and Government	1 unit
College Preparatory Mathematics	2 units
Biology, Physics, or Chemistry	1 unit

Bachelor of Arts candidates must also have two units in a foreign language. Bachelor of Arts candidates desiring to major in Mathematics must present 3 units in College Preparatory Mathematics.

The distribution of the sixteen high school units shall not exceed the following limits in any field.

English	4
Social Studies	4
Science	4
Foreign Languages	7*
Mathematics	4
Business	2
Fine Arts and Industrial Arts	2
Home Economics	2
Physical Education	1**

*8 for Language majors. No credit is accepted for less than 2 units in any one language.

**For Physical Education majors only.

- B. College Entrance Examination Board Tests. Candidates for admission are required to take the College Entrance Examination Board Scholastic Aptitude Test and the Achievement Test in English. Two other achievement tests are required according to the anticipated program of study:

Bachelor of Science Candidates with majors in Elementary Education and in Health and Physical Education (Women):
two tests of the candidate's choice.

Bachelor of Arts Candidates:

One test related to the intended major field of concentration. One test in a foreign language studied at the high school level and representing two units of study. (If English is the major field, the third required achievement test may be one of the candidate's choice.)

C. Personal Qualifications.

1. Personal Recommendations. The moral and social character of the candidate must, in the judgment of the president of Bridgewater State College, warrant the admission of the candidate. Confidential data concerning the candidate, including the recommendation of the high school principal and comments by teachers, are given consideration in determining the fitness of the candidate for the proposed program of study.
2. Health. The candidate, if a teacher-training program is his intended area of study, must be in good physical and mental health, free from any disease, infirmity, or other defect, which would render him unfit for public school teaching. All candidates, regardless of the intended area of study, are required to have a health examination prior to entrance. Information concerning such examinations is forwarded to prospective students after notification of acceptance.

PROCEDURES

- A. An application form and other information may be obtained from the Office of Admission, Bridgewater State College.
- B. Submission of Secondary School Record. An official transcript of the candidate's academic record and personal rating record must be submitted by the high school principal. The academic record must include the grades of the first marking period or first quarter of the candidate's senior year.

DATES OF ADMISSION

Bridgewater State College is on a "rolling admissions" policy. There is no one date on which the College notifies all applicants simultaneously of their acceptance. Candidates are notified on a continuing basis over a period of several months, beginning about January 15th.

If the number of qualified applicants exceeds the number that the facilities of the college will accommodate, a waiting list is estab-

lished. The position of a candidate on the waiting list is determined by his total academic and personal evaluation.

Those candidates who have not met the requirements for admission by March 15 may jeopardize their chances of receiving consideration for acceptance since the College has the authority to close Freshman Admissions at this time.

RESIDENCE HALL PLACEMENT

A. Women. The requests for residence hall placement far exceed the actual openings available. Placement is based on the total evaluation of the candidate and the distance from her permanent place of residence. Women students are not allowed to live in private residences outside the campus.

B. Men. Provisions are made for male students to reside within the area of the college in homes approved by the College if residence hall facilities are not available. These placements are assigned in the summer months prior to the opening of the academic year.

TRANSFER ADMISSION

To be eligible for admission, a candidate who has attended another college or colleges must have an over-all "C" average from all the institutions attended and must be in good standing. The transfer candidate must comply with all the requirements for admission, and in addition, he must present a transcript of credit, a statement of honorable dismissal, and a current catalog from the last college attended.

Fulfillment of these requirements for admission does not imply acceptance. Since the number of transfer applicants is much greater than the number of openings available, those candidates who offer the best evidence of scholastic achievement are chosen.

All applications should be filed by March 1.

FINANCIAL INFORMATION

Expenses

The following summary indicates as nearly as possible the regular expenses for which each student must plan in an annual budget:

I. FEES FOR RESIDENTS OF MASSACHUSETTS

1. \$200.00 a year payable in two installments at the beginning of each semester.
2. \$7.00 a semester hour--Courses for part-time day students.
3. \$18.00 a semester hour -- Program of Continuing Studies.

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two tests of the candidate's choice.

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3. \$18.00 a semester hour -- Program of Continuing Studies.

Since Bridgewater State College is a participating member of the College Scholarship Service of the College Entrance Examination Board, all loans, grants and work-study awards are made on the basis of demonstrated financial need as determined by the need analysis system derived from information supplied in the Parent's Confidential Statement. All applicants may obtain the Parent's Confidential Statement through their high school guidance counselors, or the college of their choice. Parent's Confidential Statements should be mailed to College Scholarship Service, Box 176, Princeton, New Jersey, no later than March 15th preceding the academic year for which they have been accepted. Supplementary applications for financial aid should be requested by writing directly to the Financial Aid Officer, Bridgewater State College, Bridgewater, Mass. 02324.

Loans

Alumni and friends of the college have at various times made contributions to the Students' Loan Fund at Bridgewater established for the purpose of extending aid to needy members of the Junior and Senior Classes. This fund is administered by a faculty committee, appointed by the president.

Students in the Sophomore, Junior, and Senior Classes may apply for loans to aid them in the payment of their college expenses at the office of the Massachusetts Higher Education Assistance Corporation, Statler Building, Boston, Massachusetts.

ACADEMIC POLICIES

The regular academic year consists of two semesters of sixteen weeks each. Curricula leading to baccalaureate degrees are so planned that a student pursuing a normal program will ordinarily be able to complete the requirements for graduation in four years or eight semesters.

Graduation Requirements:

Degrees will be awarded to candidates who have fulfilled the following requirements:

- 1) a minimum of 120 semester hours of credit, distributed according to requirements of either the Bachelor of Arts or the Bachelor of Science curriculum;
- 2) completion of a minimum of at least two years residence;
- 3) attainment of a cumulative average of 2.0 or higher;
- 4) clearance of all financial debts to the college.

Grading System:

The college uses the traditional letter-grade system of marking to indicate the student's relative performance: Excellent--A; Superior--B; Average--C; Passing--D; Failure--E; WP--Withdrawn Passing; WF--Withdrawn Failing. In computing averages, grades are assigned the following numerical values: A--4; B--3; C--2; D--1; E--0. Promotional averages are annually cumulative: for freshmen to advance to sophomore status, an average of 1.5 is required; to advance to junior status, an average of 1.75; to advance to senior status and to be eligible for graduation, a cumulative average of 2.0 is required.

An incomplete shall be given only when a student has missed the examination for good reason or has not completed a major assignment which can be finished within a short time. Incompletes must be made up no later than the fourth week of the regular academic semester following that in which the Incomplete occurred. A grade of "E" will automatically be entered on the transcript of any student who fails to meet this requirement.

Withdrawal from Courses:

If a student receives permission to drop a course before the completion of the first four weeks, the instructor will be so advised and no grade of any kind will be submitted. After the first four weeks some form of grade is required for all students enrolled in a course. If a student for some reason desires to drop a course after this four week period, he must secure permission in writing (on two

forms provided by the Office of the Registrar) from the head of the department in which the student is majoring and the Dean of the Undergraduate Studies. Only if such a form is filed in the Registrar's Office and the second copy returned to the head of the department may the grade of WP or WF be recorded. In all other instances a grade of "E" shall be given.

Student Loads

A full-time student at Bridgewater State College shall carry a class load of 12 to 18 semester hours, depending on the program and status of the student. This must include evening courses as well as day courses.

Students on probation are limited ordinarily to 15 or 16 semester hours at a maximum. Special programs are often arranged for them by the Academic Dean with the advice of the Committee on Academic Standing.

Failed Courses

Any course required in a given program that is failed by a student should be made up within the following year. It may not be added to the normal class load but, if necessary, may be taken in place of another course. All courses required of freshmen and sophomores must be completed satisfactorily before a student will be admitted to junior status.

Special Students

The term special student refers to non-matriculated students or to students who have been given special permission to take a part-time load.

Transfer of Credit After Admission

Approval for Bridgewater summer school and continuing studies courses, and any courses to be taken at another institution, must be obtained in advance from the appropriate department chairmen and the Dean of Undergraduate Studies. Application forms are available in the Office of the Registrar. Students should be prepared to leave a catalogue with applications for course approval. Transcripts for summer courses or continuing studies courses must be submitted to the Registrar's Office within 6 weeks after completion of the course. This transfer of grades is not done automatically. It is the student's responsibility to have continuing studies grades sent to the Registrar's Office.

Warning, Probation, and Dismissal

Warning notices are given at mid-semester to all freshmen and sophomore students who fail to maintain a "C" average in any course.

At the end of each semester, all students whose averages fall below the required minimum standard are subject to dismissal. Those students who are adjudged to have a reasonable chance of raising their total average to the acceptable level within one semester may be placed on probation, on the recommendation of the Faculty Committee on Academic Standing and by approval of the Academic Dean.

Remedial Instruction

Speech courses or individual instruction will be required of students who are preparing to teach and who, through appropriate screening procedures, show a deficiency in classroom speaking effectiveness.

Students who, through appropriate screening procedures, show a deficiency in any other area, may be required to take appropriate prerequisite or remedial courses which must be passed with a grade of "C". No semester hours credit toward meeting the graduation requirements will be given for this remedial work.

Advanced Placement

Advanced placement is now being offered by the following departments: Biology, Chemistry, English, Foreign Languages, and Mathematics.

Students who, through appropriate examination results, show a proficiency in a required course, equivalent to the course standard, may substitute advanced placement or other elective courses with the approval of both the Chairman of their major department and of the Chairman of the department involved.

The department to which the student is applying for advanced placement will use these criteria for selection:

1. An advanced placement examination approved by the department;
2. High school academic record and recommendations;
3. Personal interview of the candidate by the department.

Students who are unusually well-prepared in a particular subject or who have participated in advanced placement or honors programs in high school are advised to write to the chairman of the department(s) concerned to learn the requirements for entrance into an advanced course or section.

Alternate Sections in General Education Courses

Many of the courses offered to meet the General Education requirements have an "Alternate" section, to which especially well

qualified students may be admitted by applying for and securing the recommendation of the Instructor. These sections are, in effect, seminars which give the student the opportunity to do more advanced and independent work. Alternate sections are listed in the schedule of courses each term.

Honors Program

The general aim of the Honors Program is to encourage students to do more intensive, independent and creative work. The specific aims of the program are to: encourage superior and interested students to achieve their fullest intellectual potential; develop habits of critical thinking, self-exploration, concept formation, evaluation and oral and written expression; to encourage striving for mastery of subject matter and familiarity with techniques of research; to create an intellectual atmosphere encouraging academic achievement by all students; to present an opportunity for frequent and close association of students with similar abilities and interest in intellectual pursuits, for the exchange of knowledge, and for professional interaction with faculty members and other scholars.

Departmental Honors

Honors Programs are now offered in the departments of Biology, Chemistry, English, Geography, Health and Physical Education for Women, and History. Students should consult the Chairman of the Faculty Committee on the Honors Program and Advanced Placement for the names of departments to be added to this list.

A. Admission

1. Students who have attained an overall "B" average in their College work and are recommended by their instructors in their major department, may apply in writing for admission to the Honors Program.
2. Fulfillment of departmental requirements and recommendation by the department are necessary for acceptance.

B. Continuance in the Honors Program

1. Students who fail to maintain standards of work will be transferred to the regular course of studies and their work evaluated according to the requirements of the regular curriculum.

C. Requirements for Graduation with Departmental Honors

1. Independent study culminating in a written thesis to demonstrate mastery of both subject matter and techniques of scholarship and research in the field will be completed.
2. The completion of 6 to 12 semester hours of honors credit which may be earned in:

- a. Regular advanced courses and seminars in which the student fulfills all requirements for honors work.
- b. Honors courses and seminars open only to candidates in the Honors Program.
- c. Independent study and research under faculty supervision.
- d. Study in a field related to the student's major with approval of both of the departments involved.

Courses completed for Honors Credit will be recorded on the student's transcript with the special notation "Honors", and a description of the work accomplished.

D. Evaluation of the Work Accomplished in the Honors Program

1. Oral examination by a faculty committee on candidate's thesis and major courses, during which the student is given the opportunity to express knowledge not elicited by the examiners.
2. Any additional means of evaluation may be used at the discretion of the department. These may take the form of written examinations, colloquia and the presentation of the independent research to students and/or guests from other colleges and the community.

Dean's List:

The Dean's List is published at the termination of each academic year to honor academic achievement. A 3.3 average for all students in all classes is required.

Graduation Honors

Academic excellence for the entire baccalaureate program is recognized by awarding degrees summa cum laude (cumulative average of 3.8), magna cum laude (3.6), and cum laude (3.3).

Graduation with Departmental Honors is recognized by inscribing on the diploma the phrase "With Honors in (the appropriate field)."

Withdrawal from the College and Re-admission:

Any student who must prematurely terminate his education should withdraw officially to insure honorable dismissal. Official withdrawal forms may be obtained from the Office of the Registrar and must be signed by the Academic Dean. Should the student leave the college without giving official notification, failing grades will be recorded for all courses.

Students who have officially withdrawn in good standing may apply for re-admission to the college through the Office of the Director

of Admission. Application should be made as early as possible prior to the beginning of the semester, in order to secure a place on the roster before the quota enrollment is reached. Re-admission may be granted only after one full academic semester has elapsed since withdrawal.

Students who have been separated from the college for academic reasons may re-apply for admission through the Office of the Director of Admission. A letter to the Director of Admission must be written asking for consideration. An interview will then be arranged by the Director with the Undergraduate Committee on Admission. Following this interview the applicant will be duly notified within one week.

It is recommended that such an applicant give evidence of at least one year of academic work at some other institution of higher learning. Men who enter military service may apply for re-admission when duly separated from active duty. All course work taken elsewhere will not necessarily be accepted as transfer credit. No student who is re-admitted will be eligible to graduate with his original class.

DEGREE PROGRAMS

Bridgewater State College is authorized to grant the degrees of Bachelor of Arts and Bachelor of Science in Education. The Bachelor of Science in Education degree prepares students for teaching in the elementary schools and prepares women students for teaching physical education and health education at all levels. The Bachelor of Arts degree allows the student to select from ten different areas of concentration, and provides preparation for secondary school teaching (if education is elected as a minor), graduate school, and fields of endeavor related to the major area of study.

BACHELOR OF ARTS

General Education Requirements:

All students must take the following sequence of courses:

I. Humanities

- A. English Composition 6 S.H.
- B. Literature 3 S.H.
- C. Introduction to Philosophy 3 S.H.
- D. Humanities Elective from
Art or)
Music) 3 S.H.
- E. Humanities Elective from
Art)
Music)
Literature)
Speech and Theatre) 3 S.H.
- F. Total Semester Hours Humanities Requirements 18 S.H.

II. Foreign Language

(one half or all of these hours can be waived
by placement examination) 12 S.H.

III. Social Sciences

- A. History 6 S.H.
- B. Social Science Electives - Block 1 (select 2 courses)
General Psychology)
Introduction to Sociology)
Anthropology)
World Regional Geography I or II) 6 S.H.
- C. Social Science Electives - Block 2 (select 2 courses)
Government)
Political Science)
American History#)
Economics) 6 S.H.
- D. Massachusetts and United States Constitution# 1 S.H.
- E. Total Semester Hours Social Science
Requirements 18-19 S.H.

Massachusetts state law requires all students to take a course in the federal and state constitutions. Students may fulfill this requirement by electing HI 221 (U.S. History to 1865). Those who do not elect HI 221 must take HI 273 (United States and Massachusetts Constitutions).

IV. Mathematics and Natural Sciences

- | | |
|---|------------|
| A. Laboratory Science | 6-8 S.H. |
| B. Mathematics | 3-4 S.H. |
| C. Mathematics and Natural Science Electives | 4-6 S.H. |
| D. Total Semester Hours Mathematics and
Natural Science Requirements | 14-16 S.H. |

V. Health and Physical Education

- | | |
|---|--------|
| A. Activities - to be taken for 3 semesters | 0 S.H. |
| B. Health - to be taken for 1 semester | 2 S.H. |
| C. Total Semester Hours Health and Physical
Education Requirements | 2 S.H. |

Major Requirements:

Each student must complete not less than 24 and not more than 36 semester hours of credit in one of the following major fields of concentration: Biology, Chemistry, Earth Science, English, French, Geography, Chemistry-Geology, History, Mathematics, Physics. The 24 and 36 semester hours of credit reflect all courses taken in the major department, including those which are listed under the distribution of General Education Requirements. The student must select his major field by the end of the sophomore year.

Minor Fields of Concentration:

Education Minor:

Students may elect an education minor (see: Education under "Courses of Instruction") by taking a minimum of 18 semester hours in the sequence recommended by the Department of Education, six of which will be in student teaching.

Other Minors:

In general, students may pursue a sequence of courses in cognate areas where such a sequence is possible; namely, other fields offering majors.

Library Introduction:

Freshmen are exposed to the Library during one quarter of the Academic Year. One period a week is devoted to either developing basic library skills, acquainting one's self with general reference literature, or meeting reference problems. Required of all freshmen; 1 one-hour period during one quarter; no credit.

BACHELOR OF SCIENCE IN ELEMENTARY EDUCATION

General Education Requirements - 68 semester hours

Humanities and Creative Arts - 24 semester hours

English	12	EN 101 and 102	6	English Composition
		EN 211 and 212	6	World Literature
	or	EN 221 and 222		English Literature
	or	EN 231 and 232		American Literature

Speech & Theatre	3	ST 200	3	Oral Communication
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Art	3	AR 110	3	Introduction to Art
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Music	3	MU 110	3	Introduction to Music
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Philosophy	3	PL 380	3	General Philosophy
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Social Sciences and Behavioral Sciences - 21 semester hours

History	9	HI 111 and 112	6	History of Western Civilization
		HI 221	3	U. S. History to 1865
Psychology	6	PY 200	3	General Psychology
		PY 224	3	Child Growth & Development

Elective - 6 semester hours

History	3	HI 222		U.S. History since 1865
Sociology	3	SO 202		Introduction to Sociology
Economics	3	EC 400		Economic Principles and Problems

Natural Science and Mathematics - 21 semester hours

Mathematics	6	MA 107 and 108	6	College Mathematics for Elementary Majors I-II
Biology	6	BI 110 and BI120	6	General Botany, Zoology
Chemistry	3	CH 200	3	Survey of Chemistry
Physics	3	PH 200	3	Survey of Physics
Earth Science	3	ES 200	3	Fundamentals of Geography

Health & Physical Education - 2 semester hours

HM 110 and HE 110 2 Personal Health

Physical Education Activities - 3 semesters without credit

Professional Education

Professional Education Courses are outlined under Courses of Instruction - Education Department - Specific Department Requirements. In addition, Elementary Majors take AV 310 2 s.h. Audio-Visual Methods and Materials, and Methods and Materials Courses in Music, Art, and Physical Education.

BACHELOR OF SCIENCE IN HEALTH AND PHYSICAL EDUCATION FOR WOMEN

Freshman Year first Semester

EN 101	Composition	3
BI 120	General Zoology	3
AR 120	The Visual Arts	2
HE 151	Personal & Community Health	3
HE 161	Intro. to Physical Education	2
HE 171	Anatomy I	2
PE 133	Field Hockey I	.5
PE 123	Swimming	.5
PE 127	Track and Field	.5
PE 131	Basketball I	.5
PE 141	Creative Rhythms	.5
PE 149	Square Dance I	.5
		18.0

Second Semester

EN 102	Composition	3
MA 110	Elementary Statistics	3
BI 110	General Botany	3
MU 120	Music	2
HE 172	Anatomy II	2
PE 142	Folk Dance I	.5
PE 106	Gymnastics I	.5
PE 144	Modern Dance I	.5
PE 126	Badminton I	.5
PE 148	Lacrosse I	.5
PE 138	Soccer	.5
		16.0

Sophomore Year First Semester

PY 200	General Psychology	3
HI 221	U.S. History & Constitutions to 1865	3
PH 200	Survey of Physics	3
ST 200	Oral Communication	2
PE 261	Officiating	3
PE 265	Elementary Physical Education	3
PE 211	Games	.5
PE 241	Folk Dance II	.5
		18.0

Second Semester

PY 226	Adolescent Psychology	3
HI 222	U.S. History since 1865	3
CH 200	Survey of Chemistry	3
HE 254	Methods in Health & First Aid	3
PE 226	Badminton II	.5
PE 202	Gymnastics II	.5
PE 246	Lacrosse II	.5
PE 244	Modern Dance II	.5
PE 238	Softball	.5
PE 228	Tennis I	.5
		15.0

Junior Year First Semester

ED 392	Supervised Practice Teaching	3 or
SO 202	Sociology	3
PE 367	Evaluation in Physical Education	3
PE 363	Secondary Physical Education	3
PE 333	Field Hockey II	.5
PE 323	Swimming II	.5
PE 321	Golf I	.5
PE 347	Square Dance II	.5
Elective		3
		14.0b

Second Semester

ED 392	Supervised Practice Teaching	3
PL 380	Introd. to General Philosophy	3
BI 385	Mammalian Physiology	3
PE 352	Adapted Physical Education	3
HP 372	Applied Anatomy & Kinesiology	3
PE 332	Basketball II	.5
PE 328	Tennis II	.5
PE 308	Gymnastics III	.5
PE 348	Elective	.5
		14.0a

Senior Year First Semester

ED 480	Philosophy of Education	3
HE 451	School Health Admin. & Safety	3
PE 467	Problems in Hlth. & Phys.	3
PE 471	Physiology of Exercise	2
EN 211	Literature-Western Civilization	3
PE 425	Archery	.5
PE 439	Volleyball	.5
PE 405	Gymnastics IV	.5
PE 447	Elective	.5
PE 444	Bowling	.5
		16.5

Second Semester

ED 490	Supervised Practice Teaching	6
ST 400	Oral Communication	2
PE 465	Supervision & Admin. Physical Education	3
PE 422	Golf II	.5
PE 448	Elective	.5
PE 446	Elective	.5
		12.5

DEPARTMENTAL COURSE OFFERINGS

The following section contains the courses offered by the Academic Departments of Bridgewater State College.

Course Numbering System

- 100-199 Courses normally taken at the freshman level
- 200-299 Courses normally taken at the sophomore level
- 300-399 Courses normally taken at the junior level
- 400-499 Courses normally taken at the senior level

Usually courses offered in the fall semester are odd-numbered; those offered in the Spring semester are even-numbered. Courses offered both semesters usually end in zero.

Prerequisites

Students should make certain that they have the necessary prerequisites (if any) for each course. Failure to do so may result in being inadequately prepared to take the course, and may result in the loss of any credit earned in the course.

Unless specified otherwise, courses meet for three 50-minute periods or two 75-minute periods per week for one semester, and count for three semester hours credit. Departures from this rule, such as laboratory and studio periods and quarter courses, are stated in the course descriptions.

When an instructor's name is specified, it indicates that he normally teaches the course. However, changes are sometimes necessary, and they will be specified in the class schedule issued at registration.

DEPARTMENT OF ANTHROPOLOGY

Professor Joseph Moore, Chairman

Assistant Professors: Abraham Thomas, Dorothy Wertz

Required for a Major in Anthropology: AN 201 and AN 205, plus six to eight other courses in Anthropology.

Required courses in other fields will be determined by the area of specialization in Anthropology. Students preparing for graduate work in Physical Anthropology will major in Biology and minor in Anthropology. Students preparing for graduate work in Archaeology will major in Geology and minor in Anthropology. Those preparing for graduate study in General Anthropology will have concentrations in Biology, Chemistry, Geology, or Physics.

Students preparing for graduate work in Cultural Anthropology will have concentrations in other Behavioral Sciences, or English, Geography, History, Language, Art, Music or Speech.

Students preparing for graduate study in Personality and Culture will have concentrations in Psychology and Zoology.

MA 110 Elementary Statistics is required.

ANTHROPOLOGY

AN 201 General Anthropology

Origin of man. Physical evolution of man. Divisions of anthropology, cultural history and development. Basic concepts and methods for analyzing cultures. 3 semester hours credit. Staff

AN 202 Cultural Anthropology

Science of human behavior in different cultural contexts. Man's biological and cultural variability; human societies of the present and recent past around the world; dynamics of cultural change. 3 semester hours credit. Assistant Professor Wertz

AN 205 Culture in Process

Use of the inductive approach to examine the effect of culture on individuals and groups. Discussion and study of applied anthropological techniques used in planned programs to assist in adopting social change. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit. Staff

AN 207 Anthropology of the Arts

A study of the origins of the artistic impulse in human society and the relation of socio-economic change to changes in artistic style.

This will involve some prehistoric art, ancient Greek and Central American architecture, and the development of French Impressionism. The course will attempt to develop a comprehensive theory of styles in relation to society. Emphasis will be on the fine arts, architecture, and the theatre. Topics open to change at student request. 3 semester hours credit. Assistant Professor Wertz

AN 208 Comparative Religion

An examination of theories of the origins of religion, social functions of religious beliefs and rituals, Ancient Near Eastern Religions, Islam, Ancient Judaism, Hinduism, and Buddhism. The relations between living religions and the societies of which they form a part will receive particular attention. 3 semester hours credit.

Assistant Professor Wertz
Assistant Professor Thomas

AN 301 Introduction to Physical Anthropology

An introduction to the principles of Physical Anthropology as it relates to human evolution. Examination of present evidence, in an attempt to discover the origin of man. Such aspects of progress in homeostasis, primate radiation, body structure and posture, feeding ecology and behavior, evolution of the head and reproduction. Prerequisite: AN 201 (General Anthropology), or one year of natural science. 3 semester hours credit.

Professor Moore

AN 302 Introduction to Archaeology

Examination of field methods, systems of data recording, analytical methods, and their conceptual basis. Abstract theory closely integrated with specific case material. Laboratory exercises in application of artifact analysis. Prerequisite: AN 201 (General Anthropology) or one year of natural science. 3 semester hours credit.

Professor Moore

AN 304 Personality and Culture

A study of the interrelationships between individual and society, focussing on 1) major theories about the formation of personality by the surrounding structures, including Freudian theory and the Marxist concept of alienation; 2) a cross-cultural study of childhood; 3) adolescence in changing America; 4) several conceptions about the contemporary American personality as compared with personality structures in traditional society. Prerequisite: AN 201 (General Anthropology), AN 202 (Cultural Anthropology) or Major in Behavioral Sciences. 3 semester hours credit.

Assistant Professor Wertz

AN 305 Peoples and Cultures in India

A survey of social structure in India, with emphasis on 1) the caste system; 2) the traditional Hindu and Islamic cultures; and 3) the effects of urbanization and modernization upon traditional struc-

tures. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or ES 452 (Geography of Asia). 3 semester hours credit.

Assistant Professor Wertz

AN 307 Seminar: Urban Cultural Dynamics

A study of poverty, urban renewal, and the experience of the ghetto. This course will also include crime, family disintegration, problems of housing and transportation, and proposed solutions to the crisis of the inner city. Wherever possible emphasis will be upon Boston. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or ES 353 (Urban Geography) or SO 306 (Urban Sociology). 3 semester hours credit.

Assistant Professor Wertz

AN 320 West Indian Negro Cultures in the Caribbean

Survey of the West Indian Negro cultures in the West Indies including social organization, religion, political development and adjustment to modern conditions. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or SO 202 (Introduction to Sociology), or one semester of ES 261 (World Regional Geography). 3 semester hours credit.

Professor Moore

AN 322 Seminar: Peoples and Cultures of Africa South of the Sahara

Description and analysis of problems of colonialism, acculturation, new nationalism and rapid social change. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or SO 202 (Introduction to Sociology), or one semester of ES 261 (World Regional Geography). 3 semester hours credit.

or

Seminar: Afro-Asian Urban Cultures

Description and analysis of urban cultures in Africa and Asia with special attention to problems of rapid social change, acculturation, political and economic developments. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or SO 202 (Introduction to Sociology), or one semester of ES 261 (World Regional Geography). 3 semester hours credit.

Professor Moore

Assistant Professor Wertz

AN 323 Theory of Culture

A survey of early schools of cultural theory including Adolf Bastian, Lewis Morgan, Edward B. Tylor, the British Diffusionists, the German Historical-Diffusionist School, French Sociology, Functionalism, including Franz Boas and Malinowski. Current functional evolutionary theory. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), and AN 205 (Culture in Process). 3 semester hours credit.

Assistant Professor Wertz

AN 324 Human Evolution and Variation

Application of the general evolutionary theory to man; primatology;

human paleontology; race formation; cultural effects. Prerequisite: AN 201 (General Anthropology) and AN 301 (Introduction to Physical Anthropology); or AN 301 (Introduction to Physical Anthropology) and concentration in Biology, Physics, Chemistry, or Earth Science. 3 semester hours credit. Professor Moore

AN 326 Archaeology of North America

Survey of some of the historic and prehistoric Indian Cultures in North America. Prerequisite: AN 201 (General Anthropology) and AN 302 (Introduction to Archaeology), and concentration in Biology Physics, Chemistry, or Earth Science. 3 semester hours credit.

Staff

AN 402 Seminar on Field Methods

Methods of field work for cultural anthropologists working in on-going societies; design of field studies: techniques for collection and analysis of empirical data, experimental field projects. Prerequisite: AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit. Professor Moore

AN 404 Seminar: Anthropology for Elementary Education

Theory and techniques of teaching Anthropology to elementary students. Special course material in physical and cultural anthropology and prehistory and archaeology. Grades 1 thru 6. Prerequisite: AN 201 (General Anthropology) or AN 202 (Cultural Anthropology). 3 semester hours credit. Professor Moore

AN 406 Seminar: Archaeological Field Excavation, Survey and Research in Prehistoric Village sites in New England

Intensive training in excavation techniques, recordation, analysis, and interpretation of archaeological materials. Prerequisite: AN 302 (Introduction to Archaeology) and concentration in Earth Science. 3 semester hours credit. Staff

DEPARTMENT OF ART

Associate Professor Doris E. Tebbetts, Chairman

Assistant Professor: William L. Kendall

Instructors: John Boyko, John Heller, Estela Keim

The primary purpose of the department is to provide all students with the insights and knowledge needed for understanding: 1) the important role of the visual arts in any culture; 2) the involvement of the individual artist in the process of creation; 3) the various media and techniques used by the artist; and 4) esthetic criteria evolved from developing standards of taste.

A grade of C or above in AR 110 or AR 280 is required to continue in the Art Minor Program. Eighteen semester hours are required for an art minor, and fifteen semester hours for a concentration in art; AR 110 and AR 280 may be included in either the minor or the concentration. The student interested in a concentration or a minor in art should discuss the recommended course sequences with the department chairman.

AR 110 Introduction to Art

This course serves as an introduction to the visual arts, with emphasis on painting, sculpture, and architecture. Stress is placed on the art object as a concrete visual phenomenon, approached through an analysis of media, technical processes and esthetic principles. Also included is a discussion of style and its historical context. There will be assigned readings and museum visits. This is a required course for majors in elementary education. 3 semester hours credit. Staff

AR 120 The Visual Arts

The aim of this course is the introduction of the student of physical education to the various aspects of the visual arts with emphasis on architecture, sculpture, and painting. Analysis of historical styles, media, and specific examples of the major periods, will be stressed. There will be assigned readings and museum visits. 2 semester hours credit. Staff

AR 280 Understanding the Arts

The primary aim in this course is the development of a framework for visual understanding and enjoyment. The student is taught to apply an analytical technique to specific objects chosen for study. Attention is also focused on social, historical, and psychological factors which enter into the total fabric of art. There will be assigned readings and museum visits. 3 semester hours credit.

Mrs. Keim

AR 370 Basic Design

This course will deal with two and three dimensional surfaces and their structural possibilities; and with elements of plastic expression related to increasingly complex concepts of space and form arrangement. No prerequisite. Three 2-hour periods weekly; 3 semester hours credit. Staff

AR 373, 374 Drawing

This course is designed to develop basic skills in drawing, such as the knowledge of perspective, modeling in light and dark, and contour drawing. The student will explore the qualities of various media: pencil, pen and ink, charcoal, ink wash, etc. No prerequisite. Three 2-hour periods weekly; 3 semester hours credit per semester. Staff

AR 380 General Crafts

The student will be offered variety of technical processes in the crafts, including plastics, and glass lamination. From these he will be asked to select a limited number of projects which he will complete; each one to be representative of a different craft area. (The General Crafts courses, AR 213, 214, formerly required, are no longer offered.) One lecture period and two 2-hour periods weekly; 3 semester hours credit. Staff

AR 383 Ceramic Design I

This course is planned for the student who wishes to work three-dimensionally with a particular emphasis on the design and esthetics of clay forms. The student will learn basic wheel forming and construction techniques in clay. No prerequisite; however, AR 370 (Basic Design) is recommended. 3 semester hours credit.

Mr. Heller

AR 384 Ceramic Design II

This course is designed to offer the student who has worked with three-dimensional forms the opportunity to refine his own design ideas and to develop his technical ability. Ceramic design with glazes and the composition of clays will be explored. Prerequisite: AR 383 (Ceramic Design I) or permission of the Instructor. 3 semester hours credit.

Mr. Heller

AR 385 Metal Design I

Basic metal design, construction, and forming techniques will be combined to produce jewelry, constructed and enameled forms, and small sculptures. The student will have the opportunity to develop proficiency in the use of basic hand tools related to the field. The student may choose to work in pewter, copper, silver, or gold. No

prerequisite; however, AR 370 (Basic Design) is recommended.
3 semester hours credit. Mr. Heller

AR 386 Metal Design II

Students who have completed basic work in the design, construction, and embellishment of objects in metal, will develop and refine their own designs. Advanced problems and techniques will offer a chance for further experimentation. The student will decide his own problems and choice of materials. Prerequisite: AR 385 (Metal Design I) or permission of the Instructor. 3 semester hours credit. Mr. Heller

AR 387 Painting I

The course is planned to develop basic skill in pictorial organization and in painting techniques. Evaluation will be based on the individual student's extent of growth during the course. Field trips to art museums and galleries will give the students direct contact with original works of well known artists. (This course was formerly given as AR 387 (Techniques of Drawing and Painting I). Three 2-hour periods weekly; 3 semester hours credit. Mr. Kendall

AR 388 Painting II

Advanced projects in painting will be planned appropriate to the individual's style of development. Field trips to art museums and galleries will be orientated toward analysis of technique and design. (This course was formerly given as AR 388, Techniques of Drawing and Painting II). Prerequisite: AR 387 (Painting I) or permission of the Instructor. Three 2-hour periods weekly; 3 semester hours credit. Mr. Kendall

AR 390 Interior Design

Traditional and contemporary styles in furniture and interior design are studied in illustrated lectures and field trips. Problems in the selection and arrangement of home furnishings afford opportunity for the development of individual taste. (This course was formerly offered as AR 380, Interior Design). 3 semester hours credit. Associate Professor Tebbetts

AR 391 History of Art

This course is designed to acquaint the student with the major historical developments in art from the Prehistoric through the late Gothic. The phenomenon of style is examined in conjunction with its relation to the historical process. There will be assigned readings and museum work. Prerequisite: AR 110 (Introduction to Art) or AR 280 (Understanding the Arts); or permission of the Instructor. 3 semester hours credit. Mrs. Keim

This course is a continuation of AR 391 (History of Art), beginning with the Renaissance and carrying through the Modern era. Techniques of stylistic analysis are employed in the study of objects chosen from museum collections. There will be assigned readings and museum work. (AR 391, AR 392 replace the course formerly offered as AR 391, History of Art.) Prerequisite: AR 391 (History of Art), or permission of the Instructor.

Mrs. Keim

DEPARTMENT OF BIOLOGICAL SCIENCES

Professor Kenneth J. Howe, Chairman

Commonwealth Professor and Dean of the Graduate School: Frank J. Hilferty

Professors: James R. Brennan, Elizabeth F. Cirino, Lawrence B. Mish, William J. Wall, Jr.

Assistant Professors: Bradley S. Bowden and Walter M. Hewitson

Instructor: Harold P. Schaefer

Laboratory Instructors: Robert W. Clark, Leslie T. Malmgren and Richard J. Olson

The Department of Biological Sciences offers a broad major program in biology designed to prepare students for teaching, research, and graduate work. For those with majors in fields related to biology, or for those interested in developing a better understanding of the life sciences, the Department offers an integrated series of courses appropriate to each student's concentration.

Biology majors who are matriculated for the degree of Bachelor of Arts, in addition to completing the General Requirements, must satisfactorily complete the following courses: BI 110, 120, 281, 282, 283, 292, 381, 393, 395, 397, 401, 405, 411; CH 131, 132; MA 103, 104; PH 181, 182; LG* 101, 102, 291, 292, or LF 101, 102, 181, 182; and PY 200. CH 131, 132, and MA 103, 104, must be taken in the freshman year.

Incoming students who elect a major concentration in biology and who have had advanced training in biology will usually be permitted to enroll in courses beyond the 100 series if they meet departmental requirements for advanced placement. Students interested in advanced placement should consult the general section of the catalog and the Chairman of the Department.

Students interested in preparing for careers in medicine, oceanography, or dentistry should consult the Interdepartmental Program section in the catalog.

*Students considering subsequent graduate work are strongly advised to select German for the language requirement.

BI 110 General Botany

An introduction to the principles of biology with special reference to the botanical aspects, this course emphasizes the structure, function, and classification of plants. The following topics are considered: structure of cells, tissues, and organs; photosynthesis; water relations; respiration; growth; reproduction; heredity; disease; evolution; and a general survey of the plant kingdom. Biology 110 and 120 constitute a coordinated course in general biology, and

students are expected to complete both semesters. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Professor Howe
and Staff

BI 120 General Zoology

An introduction to the principles of biology with special reference to zoological aspects, this course emphasizes the following topics: protoplasm and the cell, taxonomy, histology, parasitology, vertebrate and invertebrate anatomy and physiology, embryology, ecology, evolution, and a general survey of the animal kingdom. Biology 110 and 120 constitute a coordinated course in general biology and students are expected to complete both semesters. BI 120 may be taken before BI 110. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Professor Wall
and Staff

BI 180 Conservation of Natural Resources

This course stresses the importance of conservation of natural resources, especially water, and the role of plants and animals in the maintenance and replenishment of our natural heritage. Lectures, guest speakers, readings, and field trips to good and bad examples of conservation practice will form an important segment of the course. The course is an exposition of the conservation problems of Southeastern Massachusetts and is designed for teachers of junior and senior high school biology and general science, and for city and town officials concerned with water, sewage, forestry, conservation, and industrial development and planning. 1 lecture period weekly for half of one semester and one 3-hour laboratory period weekly for the remainder of the semester. 3 semester hours credit.

Professor Mish

BI 281 Invertebrate Zoology

The biology of invertebrates is studied, with emphasis on comparative morphology, taxonomy, physiology, natural history, and evolution. Representatives of the principal classes of each phylum are considered. Prerequisite: BI 120 (General Zoology); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Professor Wall

BI 282 Comparative Chordate Anatomy

An ontogenetic and phylogenetic survey is made of chordate gross anatomy, supplemented by laboratory dissections of representative species. Emphasis is placed on the changes in chordate structure and biology that comprised their evolution, and an interpretation made of the whole series of change in the light of our modern knowledge of how evolution is brought about. Prerequisite: BI 120 (General Zoology); or permission of the Instructor. 2 lecture

periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Assistant Professor Bowden

BI 283 Field Natural History

The identification, classification, and natural history of local plants and animals, and techniques of collecting and preserving specimens are included in this course. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology); or permission of the Instructor. One 4-hour laboratory period weekly for one semester (first and fourth quarters); 2 semester hours credit.

Professor Mish
and Staff

BI 292 Plant Anatomy

This course includes a study of structural features of extant vascular plants from ontogenetic and phylogenetic viewpoints. Special attention is given to recent developments in comparative plant anatomy, references to nonvascular and extinct vascular plants, correlation of microscopic features with gross structure, the value of plant anatomy to other sciences and industry, and introductory microtechnique. Prerequisite: BI 110 (General Botany); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Assistant Professor Hewitson

BI 300 Biochemistry

A study is made of the functions, chemical transformations, and attendant energy changes associated with basic biological phenomena. Prerequisite: BI 110 (General Botany); BI 120 (General Zoology); CH 131, 132 (General Chemistry with Qualitative Analysis I-II); MA 103, 104 (Mathematical Analysis I-II), or permission of the Instructor. 3 lecture periods weekly. 3 semester hours credit.

Staff

BI 381 Animal Physiology

General physiological principles common to invertebrates and vertebrates are discussed with major emphasis given to: excretion, vascular fluids, gaseous exchange, secretion, irritability, contraction, and integrated functions in animals. Prerequisite: BI 120 (General Zoology), CH 131, 132 (General Chemistry with Qualitative Analysis I-II), MA 103, 104 (Mathematical Analysis I-II), PH 181, 182 (Elements of Physics I-II); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Associate Professor Morin

BI 385 Mammalian Physiology

Consideration is given to general physiological principles and their application to the human body. Topics covered are circulation,

excretion, nervous function, muscle movement, and hormonal control. Prerequisite: BI 120 (General Zoology); PH 181, 182 (Elements of Physics I-II); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit. Associate Professor Morin

BI 392 Problems in Biology

This course is designed for advanced students desiring individual instruction in the methods of general biological, botanical, or zoological investigation. Prerequisite: Permission of the Departmental Chairman. Credits and hours to be arranged. Staff

BI 393 Genetics

An intensive study is made of the basic principles of heredity and variation in plants and animals. Emphasis is placed on methods of problem solving and the historical background of the science. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology), and MA 103, 104 (Mathematical Analysis I-II); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit. Professor Brennan

BI 394 Limnology

A field course designed to acquaint the student with principles governing the distribution of species within their aquatic milieu. The application or laboratory phase will be developed around the facilities afforded by the Carver Pond Field Station and the Bioassay Laboratory. Course content will include environmental analysis, life cycles of some dominant forms, taxonomy of the aquatic biota, and pollution ecology. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit. Staff

BI 395 Microbiology

This course provides an introduction to the biology, growth, and identification of micro-organisms significant to man. Special emphasis is directed toward laboratory techniques. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology), and CH 131, 132 (General Chemistry with Qualitative Analysis I-II); or permission of the Instructor. 4 lecture periods and two 2-hour laboratory periods weekly for one quarter. 3 semester hours credit. Mr. Schaefer

BI 397 Plant Physiology

This course provides an introduction to the growth and function of plants including cellular physiology, water relations, metabolism, respiration, photosynthesis, nutrition, and the influence of environ-

ment on the growth and development of higher plants. Prerequisite: BI 110 (General Botany), and CH 131, 132 (General Chemistry with Qualitative Analysis I-II); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Professor Howe

BI 401 Seminar in Biology

This seminar provides discussion of current problems and research in the biological sciences. Although primarily composed of the faculty and seniors of the Department of Biological Sciences, all interested members of the college faculty and qualified students are invited to participate. 1 period weekly for the first, second, and fourth quarters. 1 semester hour credit.

Professor Wall
and Staff

BI 405 Systematics and Evolution

In this course consideration is given to contemporary taxonomic problems in the light of evolutionary phenomena. Emphasis is placed on such mechanisms of specialization as mutation, variation, hybridization, polyploidy, isolation, natural selection, and genetic drift. Prerequisite: BI 393 (Genetics); or permission of the Instructor. 6 periods weekly for one quarter. 3 semester hours credit.

Commonwealth Professor Hilferty

Professor Wall

Assistant Professor Hewitson

BI 410 Marine Biology

A study is made of the marine ecosystem. Emphasis is placed on factors involved in growth, diversity, and distribution of populations occupying the natural marine habitats of the Eastern Atlantic Coast. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit.

Professor Cirino

and Staff

BI 411 Ecology

The dynamics and evolution of populations, communities, and ecosystems are emphasized. Students will become acquainted with the communities of Southeastern Massachusetts through field studies, which make up a major portion of the laboratory requirement. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly for one semester (first and fourth quarters). 3 semester hours credit.

Professor Cirino

BI 422 Radiation Biology

This course provides a study of unstable isotopes and the types of radiation in the electromagnetic spectrum, with emphasis placed

on their biological effects, use in the field of biology, and precautions necessary for utilization. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology), CH 131, 132 (General Chemistry with Qualitative Analysis I-II), MA 103, 104 (Mathematical Analysis I-II), and PH 131, 182 (Elements of Physics I-II); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit. Associate Professor Morin

BI 427 Cytology

A detailed study is made of cellular morphology and organization including descriptions of major intracellular processes and functional significance of cellular structures. Prerequisite: BI 110 (General Botany), BI 120 (General Zoology); or permission of the Instructor. 2 lecture periods and one 2-hour laboratory period weekly. 3 semester hours credit. Professor Brennan

BI 481, 482 Cellular and Molecular Biology (NSF)

This course is a modern approach to the science of biology, involving the study of cellular structure and function. Major emphasis is given to basic metabolism and biochemistry, ultrastructural cytology, molecular genetics, and cellular physiology. A survey of the principles important to all life will be stressed as well as the historical development of the concepts and the dynamic and changing nature of biological science. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit for each semester. Professor Brennan
Associate Professor Morin

DEPARTMENT OF CHEMISTRY

Professor Wilmon B. Chipman, Chairman

Associate Professors: Henry O. Daley, Jr., Margaret R. Souza

Assistant Professors: Vahe M. Marganian, Joseph M. Pagano

The Chemistry Department offers two programs leading to the Bachelor of Arts degree in chemistry. The first of these, the major in Professional Chemistry, is designed for students who plan to go on to graduate work in Chemistry or to do research in the chemical industry. The courses offered in this program meet the requirements of the American Chemical Society for an approved major. Satisfactory performance in this program (B average) will give the student the professional preparation required for an assistantship or fellowship in graduate school.

The second major in Chemistry is designed for students who wish to prepare for secondary school teaching, chemical sales work, medicine, dentistry, pharmacy, oceanography, or veterinary science. This program is designed to allow a maximum amount of

flexibility in that only a minimum number of chemistry courses are included. The student enrolled in this program may elect more chemistry courses if he desires, or he may elect courses in other sciences or in the Humanities, Social Sciences or Education. The student need not decide between the programs until the second semester of his sophomore year. Both curricula are structured so that the student achieves a well-balanced liberal education and professional training in his major field.

Students interested in medicine or dentistry should consult the section of the catalog describing the pre-medical and pre-dental programs.

Attention is called to the Chemistry-Geology major offered jointly by the Departments of Chemistry and Earth Sciences.

The Chemistry Department has recently acquired the following equipment: a Varian T-60 Nuclear Magnetic Resonance Spectrophotometer, with time-averaging device (C-1024); a Perkin-Elmer Model 257 Infrared Spectrophotometer; a Perkin-Elmer Model 202 Ultraviolet Spectrophotometer; Perkin-Elmer Model 154D and Varian Aerograph 1720-1 Gas Chromatographs; a Perkin-Elmer Model 303 Atomic Absorption Spectrophotometer; and a Perkin-Elmer Model 700 Infrared Spectrophotometer. An X-ray Diffraction apparatus is shared with the Department of Earth Sciences. The Chemistry Department has also acquired such necessary equipment as recorders, Malmstadt-Enke Instrumentation Laboratories, pH meters, Spectronic 20's, and standard-taper glassware kits.

The major in Professional Chemistry is required to take the following courses: CH 141, 142, (or CH 131, 132), 241, 242, 343, 344, 381, 382, 441, 442, 444, 450; and MA 101, 102, 201, 202; PH 243, 244, 387; LG 101, 102, 191, 192 or LR 101, 102, 151, 152. (German or Russian may be replaced with French with the written permission of the Department).

The major in Chemistry is required to take the following courses: CH 141, 142, (or CH 131, 132), 241, 242, 343, 344, 381, 382; and MA 101, 102, 201; PH 243, 244; LG 101, 102, 191, 192 or LR 101, 102, 151, 152. (German or Russian may be replaced by French with the written permission of the Department).

CH 131, 132 General Chemistry with Qualitative Analysis I-II

A study will be made of the elements and their compounds, with emphasis on structure and its relation to properties. CH 131 is prerequisite to CH 132. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit for each semester.

Staff

CH 141, 142 Inorganic Chemistry with Qualitative Analysis I-II

Theoretical inorganic chemistry with emphasis on mass-energy relationships in terms of structure and physical laws. Laboratory work emphasizes quantitative techniques. CH 141 is prerequisite to CH 142. 3 lecture periods and 1 four-hour laboratory period weekly. 4 semester hours credit for each semester. Staff

CH 200 Survey of Chemistry

The fundamental laws of chemistry are studied together with their application to elements and compounds, reactions and properties. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit. Staff

CH 241 Inorganic Quantitative Analysis

A study will be made of the classical and modern methods for the volumetric and gravimetric determination of elements and groups. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis), or CH 132 (General Chemistry with Qualitative Analysis). 3 lecture periods and 1 four-hour laboratory period weekly. 4 semester hours credit. Assistant Professor Pagano

CH 242 Principles of Inorganic Chemistry

Modern structural concepts of inorganic chemistry and descriptive inorganic chemistry are presented at an intermediate level. Prerequisite: CH 241 (Inorganic Quantitative Analysis); or permission of the Instructor. 3 semester hours credit.

Assistant Professor Pagano

CH 343, 344 Organic Chemistry I-II

A survey will be made of the chemistry of organic compounds from the points of view of synthesis, structure, and reactions, including some study of the mechanisms of organic reactions. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis), or CH 132 (General Chemistry with Qualitative Analysis) and permission of the Instructor. CH 343 is prerequisite to CH 344. 3 lecture periods and 1 four-hour laboratory period weekly. 4 semester hours credit for each semester. Staff

CH 381, 382 Physical Chemistry I-II

A study will be made of the laws governing the physical and chemical behavior of compounds. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis), or CH 132 (General Chemistry with Qualitative Analysis); MA 201 (Calculus with Analytic Geometry II). CH 381 is prerequisite to CH 382. 3 lecture periods and 1 four-hour laboratory period weekly. 4 semester hours credit for each semester. Associate Professor Daley

CH 390 Research Problems in Chemistry

Special projects for advanced students desiring individual instruction in the methods of chemical research. Prerequisite: Permission of the Department. Credit and hours to be arranged. Staff

CH 392 Laboratory Techniques

A laboratory course designed to introduce the student to special techniques used in the research laboratory, such as glass-blowing, vacuum line technique, vacuum distillation, dry-box operations and advanced synthetic techniques. 3 semester hours credit. Staff

CH 440 Advanced Organic Chemistry

This course will include selected topics in organic chemistry such as physical organic chemistry, mechanisms, alicyclic and heterocyclic chemistry or advanced synthetic methods. Prerequisite: CH 343, 344 (Organic Chemistry), and permission of the Instructor. 3 semester hours credit. Staff

CH 441, 442 Qualitative Organic Analysis I-II

This course will review the reactions of organic compounds with emphasis on reactions of importance for classification and identification. Laboratory work involves the identification of both simple compounds and mixtures. Prerequisite: CH 344 (Organic Chemistry). 1 lecture period and 1 six-hour laboratory period weekly. 3 semester hours credit for each semester. Staff

CH 444 Advanced Inorganic Chemistry

Principles of inorganic chemistry are presented at an advanced level. Prerequisite: CH 381 and CH 382 (Physical Chemistry). CH 382 may be taken concurrently. 3 semester hours credit. Assistant Professor Marganian

CH 450 Instrumental Analysis

Theory and practical application of instrumental methods are applied to chemical analysis. The course will include pH measurements, electrodeposition, potentiometry and spectroscopy. Prerequisite: CH 381, and CH 382 (Physical Chemistry). CH 382 may be taken concurrently. 2 lecture periods and 1 four-hour laboratory period weekly. 3 semester hours credit.

Assistant Professor Marganian

CH 461, 462 General Biochemistry I-II

A study will be made of the chemical components of living matter and the major processes of cellular metabolism. Prerequisite: CH 343, 344 (Organic Chemistry), and permission of the Instructor. 3 semester hours credit for each semester. Professor Chipman

CH 480 *Special Topics in Physical Chemistry*

Topics of an advanced nature in physical chemistry will be selected with an emphasis on recent developments in the field. (Possible topics: N.M.R., E.S.R., elementary quantum mechanics, statistical thermodynamics). Prerequisite: CH 382 (Physical Chemistry), and permission of the Instructor. 3 semester hours credit.

Associate Professor Daley

DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

Professor Emanuel Maier, Chairman

Professor: Agrippina A. Macewicz

Associate Professors: Robert F. Boutilier, Ralph S. Fellows, Ira E. Furlong

Assistant Professors: Richard Enright, Marilyn H. Furlong

Instructors: Robert J. Dillman, Susan Drake

Visiting Lecturers: Richard Barber, Joseph Chase (Oceanography-Woods Hole Oceanographic Institution), Leonard Solomon (Astronomy-Itek Corporation)

The Department of Earth Sciences and Geography offers two separate fields of concentration: Geography and Earth Sciences. The program of study for Geography Majors is designed to give a student knowledge and appreciation of the physical and cultural attributes of the world in which they live. The concentration in Earth Sciences aims to introduce students to the various sciences that relate to the physical aspects of the earth and the universe.

Students majoring in geography are required to take the following courses: ES 181, 182, 303, 304, 315, 362, 471, 473; elect two from the following group: ES 252, 451, 358, 361; and elect two from the following group: ES 192, 301, 306, 484. An additional requirement is one course in elementary statistics (MA 110 or equivalent). A total of 35 semester hours are required. Not more than one "D" for a semester course shall be accepted for fulfillment of the requirements for the major.

Students majoring in the earth sciences are required to take the following courses: ES 181, 192, 301, 303, 306, 372, 463, 484; and elect two more approved earth science courses. Additional requirements are: one year of mathematics, one year of chemistry, and one year of either physics or biology. A total of 34 semester hours are required in the major. Not more than one "D" for a semester course shall be accepted to fulfill the requirements for the major.

Minors are available in both geography and the earth sciences. A program with a minimum of 18 hours is to be approved by the chairman of the Department.

ES 181 Physical Geology

This course involves a study of the constitution of the earth together with an evaluation of the processes acting on and within it. Field trips are an integral part of the course. This course may be followed by either ES 182 or ES 192 in the second semester. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit. Offered both semesters. Staff

ES 182 Physical Geography

In this course the characteristics, classification, origin, and distribution of the earth's physical phenomena such as atmosphere, climate, vegetation, and soils are studied as well as the distribution of population. Emphasis is placed upon developing an understanding and appreciation of the relationships between the physical features of the earth and man. Field trips. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit. Offered both semesters. Staff

ES 192 Historical Geology

Historical Geology is a study of the major geological events on the earth as revealed by the structure and composition of the rocks and the evolution of the fossil record. Prerequisite: ES 181 (Physical Geology). 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit. Staff

ES 200 Fundamentals of Geography

Essentially combines ES 181 and ES 182 into a single semester. Designed especially for students working for the degree of B.S. in Elementary Education. 2 lecture periods and one two-hour laboratory period weekly. 3 semester hours credit. Staff

ES 252 Geography of Anglo-America

In this course the fundamentals of Geography are applied in the analysis of geographic regions of Anglo-America. This course is designed to give familiarity with the methods of securing, organizing, and presenting geographical data. Prerequisite: ES 181 (Physical Geology), ES 182 (Physical Geography), or ES 200 (Fundamentals of Geography); or permission of the Instructor. 3 semester hours credit. Staff

ES 301 Astronomy I

The major concern of this course is a study of the earth, moon, planets, sun, and other stars and galaxies. Emphasis is placed on such topics as the new findings of radio astronomy and the uses of earth satellites. Day and evening observations. 3 semester hours credit. Mr. Solomon

ES 302 Astronomy II

This course deals with stars, galaxies, stellar evolution, instrumentation, and cosmology. Day and evening observation. 3 semester hours credit. Mr. Solomon

ES 303 Meteorology

This is an introductory course in which atmospheric behavior, weather elements, and cyclonic phenomena such as hurricanes, tornadoes, and frontal circulations are analyzed. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit.

Miss Drake

ES 304 Climatology

Mr. Dillman

A study will be made of climatic elements and climatic controls and their application to the analysis of climatic regions of the world. Prerequisite: ES 303 (Meteorology), or permission of Instructor. 3 semester hours credit.

Miss Drake

ES 305 Introduction to Oceanography I

Mr. Dillman

Survey of marine life forms and of the chemistry of seawater. Prerequisite: BI 110 (General Botany), and BI 120 (General Zoology), or permission of Instructor. 3 semester hours credit. Dr. Barber

ES 306 Introduction to Oceanography II

A study will be made of ocean water temperature, circulation, shore lines, ocean basins, and mineral resources. Prerequisite: MA 101 (Calculus with Analytic Geometry I); MA 102 (Calculus with Analytic Geometry II) or MA 103 (Mathematical Analysis I); and MA 104 (Mathematical Analysis II), or permission of Instructor. 3 semester hours credit.

Mr. Chase

ES 315 Cartography

This course aims to train students in the graphic presentation of geographic data, and acquaint them in the latest techniques of map construction. 1 lecture period and 4 hours laboratory weekly. 3 semester hours credit.

ES 353 Urban Geography

The geographic aspects of the city, including location, function, land use patterns, and tributary areas, will be analyzed. Prerequisite: Permission of Instructor. 3 semester hours credit.

Professor Macewicz

ES 354 Field Methods in Urban Geography

Prerequisite: ES 353 (Urban Geography). 2 semester hours credit.

ES 358 Geography of Latin America

In this course physical and cultural patterns of selected countries of South America are analyzed. Emphasis is placed on current economic and political problems. 3 semester hours credit.

Professor Maier

ES 261, 262 World Regional Geography

This course deals with the geographical context of current social economic and political problems in Europe, the U.S.S.R., the Orient, the Middle East, the Pacific World, Africa, Latin America, and Anglo-America. The emphasis is on the geographical features characteristic of each country, and on their relationship to its role as a functioning political and economic unit. 3 periods weekly for two semesters. Either semester may be taken independently. 3 or 6 semester hours credit.

Professor Maier

ES 362 Economic Geography

In this course the mineral, plant, and soil resources of the world are studied with emphasis on their location and present and potential uses. Manufacturing regions and the transportation systems that link the various regions of the world are also considered. Prerequisite: ES 181 (Physical Geology), ES 182 (Physical Geography), or ES 200 (Fundamentals of Geography); or permission of Instructor. 3 semester hours credit.

Assistant Professor Furlong

ES 363 Field Methods in Economic Geography

Prerequisite: ES 362 (Economic Geography). 2 semester hours credit.

ES 372 Mineralogy

This course will present an introduction to crystallography followed by the determinative and physical mineralogy of important rock and ore forming minerals. Prerequisite: A knowledge of chemistry. 2 lecture periods and 2 two-hour laboratory periods weekly. 4 semester hours credit.

Associate Professor Boutilier

ES 405 Synoptic Meteorology

This is a course in investigation of world and local air systems, air masses, and fronts. Weather maps, upper air charts, and basic forecasting techniques will be considered. Prerequisite: ES 303 (Meteorology). 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit.

Staff

ES 407 Air-Photo Interpretation

A study will be made of the physical and cultural patterns on the

earth's surface and their recognition on air photographs. 1 lecture period and 2 two-hour laboratory periods weekly. 3 semester hours credit. Staff

ES 413 Survey of Physical and Historical Geology

Topics covered will be the origin, structure, and history of the earth as revealed by its minerals, rocks, and fossils. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit. For Biology majors only. Staff

ES 451 Geography of Europe

This course is designed to give students an understanding and appreciation of the interrelationships among the various physical and cultural patterns of Europe. 3 semester hours credit.

Professor Macewicz

ES 452 Geography of Asia

In this course the physical and cultural patterns of selected countries of Asia are analyzed. 3 semester hours credit.

Professor Macewicz

ES 461 Geography of Africa

The physical and cultural features of the African continent with special references to the emerging political and regional patterns are studied. 3 semester hours credit. Staff

ES 462 Geology of North America

Each of the physiographic provinces of North America will be studied in terms of its geomorphology and structural relationships. Prerequisite: ES 181 (Physical Geology). 3 semester hours credit. Staff

ES 463 Petrology

This course is designed to help students develop skills involving rock classification and identification by both hand specimen and thin section techniques. Prerequisite: ES 181 (Physical Geology). 1 lecture period and 2 two-hour laboratory periods weekly. 3 semester hours credit. Associate Professor Boutilier

ES 464 Economic Geology

This course considers the geochemical and physical processes that produce metallic and non-metallic mineral deposits. Prerequisite: ES 181 (Physical Geology). 3 semester hours credit. Staff

ES 466 Glacial Geology

This course presents a detailed study of the mechanics of glacial origin and movement, and the features produced by glacial erosion and deposition. Emphasis will be placed on the Pleistocene Epoch in North America. Prerequisite: ES 181 (Physical Geology). 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit.

Staff

ES 471 Seminar in Geography

This course presents the historical development of the field of geography. Emphasis is placed on the development of an understanding and appreciation of the tools, techniques, and methods used in research in geography. The preparation of a research paper on a problem selected from one of the subdivisions of the field is required. 2 periods weekly for 3 quarters, or 3 periods weekly for one semester. 3 semester hours credit.

Professor Macewicz

ES 472 Research in Earth Sciences

The preparation of a research paper in the Earth Sciences is required. 3 semester hours credit.

Staff

*ES 473 *Political Geography*

A study will be made of the variation of politically organized areas and their relationship to each other. Political behavior will also be examined from viewpoint of ethology, i.e., territoriality and aggression. 3 periods weekly. 3 semester hours credit.

Professor Maier

ES 474 Quantitative Geography

Prerequisite: Permission of Instructor. 2 semester hours credit.

ES 475 Paleontology

Topics covered will be a survey of the fossil record and an introduction to invertebrate and vertebrate paleontology. Emphasis will be placed on the most important phyla and environmental relationships. Prerequisite: ES 181 (Physical Geology) and ES 192 (Historical Geology), or background in Biology. 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit.

Assistant Professor Enright

ES 483 Structural Geology

This course consists of a study of the architecture of the earth as related to rock structures, their origin, and description. Prerequisite: ES 181 (Physical Geology). 2 lecture periods and 1 two-hour laboratory period weekly. 3 semester hours credit.

Associate Professor Boutilier

ES 484 Geomorphology

Associate Professor Furlong

Emphasis will be placed on a study of the relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Prerequisite: ES 181 (Physical Geology) and ES 182 (Physical Geography). 3 semester hours credit.

Ira Furlong

DEPARTMENT OF ECONOMICS

Professor Jordan Fiore, Acting Chairman

Instructors: Stanley S. Antoniotti, Richard Freeman

EC 320 Comparative Economic Systems

This will include an analysis of the central economic problems which nations face in organizing economic activity, and a comparison of theories and institutions of capitalism and liberal socialism. Attention is given to the elements of strength and weakness found in the economic systems of various countries. Open to Sophomores and Juniors with permission of Adviser. 3 semester hours credit.

Staff

EC 400 Economic Principles and Problems

This course offers a concentrated study of significant economic concepts, institutions, and problems of a free enterprise system. Elective in Bachelor of Arts Program. Required for Bachelor of Science in Elementary Education. 3 semester hours credit.

Mr. Freeman

EC 420 Principles of Investment

An introduction to the mechanics of the stock market is presented. Various investment media are analyzed in regard to their desirability for individual investment portfolios. Some attention is also paid to the investment policies of selected financial institutions. Elective with permission of the Instructor. 3 semester hours credit.

Staff

DEPARTMENT OF EDUCATION

Professor Stanley L. Clement, Chairman

Professors: Robert A. Daniel, John P. Deasy, V. James DiNardo,
Robert D. MacCurdy

Associate Professors: Philip R. Dooley, W. David Englund, Paul
F. Kell  y, Evelyn R. Lindquist, Rita K. Nadal, Dorothy S. Wood

Assistant Professors: Anthony V. DeLeo, Marian C. Doyle, Henry
J. Fanning, Margaret E. Farrell, Robert E. Fitzgibbons, James
F. Francis, John J. Kent, Isabelle B. King, Vincent J. Worden

Instructors: Genevieve M. Ash, Martha R. Drinkwater, John W.
Jones, Gerald J. Thornell, Claire M. Walker, Raymond J.
ZuWallack

The Education Department strives to provide the student with the professional competencies necessary to become an effective teacher, including an understanding of how students learn, a knowledge of the principles and philosophical foundations of American public education, and an ability to use appropriate teaching procedures, materials, and evaluation techniques. The most important part of the teacher preparation program is the provision for student teaching in actual school situations. The Education Department assumes responsibility for the programs of students desiring to teach in elementary schools and provides a minor program for all college students who wish to earn teacher certification.

Specific Department Requirements

In addition to the general education requirements (See: Bachelor of Science in Elementary Education under "Degree Programs"), students majoring in elementary education must take the following courses in their discipline: ED330, 340, 350, 390, 420, 462, 480 and 490, and also AV 310 and PE 370. Elementary majors must have a concentration in one of the following fields: English, Speech, Art, Music, Language, History, Urban Education, Anthropology, Psychology, Sociology, Biology, Earth Science, Chemistry, Physics, Physical Science, Mathematics, Library Science, Kindergarten-Primary, Special Education, Instructional Media, and Physical Education. This concentration will consist of at least nine semester hours credit beyond the general education requirements.

Education Minor

Students preparing to teach in secondary schools pursue a program leading to the degree of Bachelor of Arts with a minor concentration in Education. This education minor enables the student to receive a Secondary Teaching Certificate immediately upon gradua-

tion. Each student must complete a minimum of 18 semester hours of credit in professional education courses, 6 of which will be earned in student teaching in the senior year. The following courses are required for the minor: ED 310, 312-324, 420, 480 and 490.

ED 102 College Orientation

The purposes of this course are: to help the freshman student interpret his new environment; to aid him in making more efficient use of the tools and methods essential for study; and to encourage the development of a professional personality. Required of all Freshmen. One period weekly for one semester. 0 semester hours credit.

Dean Deep
Miss Drinkwater
Miss Ash

ED 310 Principles of Secondary Education

The secondary school in a democratic society is examined in terms of its objectives, structures, and articulation with elementary and higher education. Its legal development is reviewed, and a comparison is made to public and private secondary institutions in this and in other countries. Emphasis is placed on the history and philosophy of the secondary school, the nature of the learning process, and teaching methods as they are affected by different secondary models. Special attention is given to the organic structure, governance, discipline, evaluation made of the school by our society, and how the school reorganizes in an attempt to meet these criticisms. Required of all Secondary majors with an Education minor. 3 semester hours credit.

Professor MacCurdy
Associate Professor Kelley

ED 312 Teaching Social Studies in the Secondary School

Assistant Professor Myers

ED 314 Teaching English in the Secondary School

Associate Professor Joki

ED 316 Teaching Earth Science in the Secondary School

Professor MacCurdy
Associate Professor Boutilier
Mr. Jones

ED 317 Teaching Geography in the Secondary School

Professor MacCurdy
Mr. Dillman

ED 318 Teaching Physical Science in the Secondary School

Professor MacCurdy
Professor Weygand

ED 320 Teaching Biology in the Secondary School

Professor Cirino
Professor MacCurdy

ED 322 Teaching Mathematics in the Secondary School

Professor MacCurdy
Associate Professor Lemos

ED 324 Teaching Language in the Secondary School

Associate Professor Kelley
Assistant Professor Shapiro

ED 326 Methods of Speech Instruction (See Dept. of Speech and Theatre)

The above courses are comparable in purpose and design, differing as application is made to a particular subject field. The main emphasis will be on the establishing of objectives, the choosing of appropriate content, procedures, materials, and the techniques of planning necessary to accomplish the objectives. Other topics will include classroom organization and management, meeting of individual differences, evaluation and reporting of progress, and recent developments in methodology and subject matter. Prerequisite: PY 200 (General Psychology). Appropriate course required of all Secondary majors with an Education minor. 3 semester hours credit.

ED 330 Teaching of Reading in the Elementary School

This course will consider how reading instruction is initiated, how basic reading abilities are developed, and how growth in voluntary reading is encouraged. The essentials of an effective developmental reading program will be examined with attention to organizing reading groups and evaluating progress. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors. 3 semester hours credit.

Professor Deasy
Assistant Professor Francis
Assistant Professor King

ED 340 Methods and Materials in Elementary Language Arts

The new language-focused approach to English in the elementary school from the current findings of linguistics and the modern concepts of English grammar and usage will be stressed. Students will be provided with strategies and ideas for putting theory into practice in teaching the skills and abilities of listening, speaking, and writing through imaginative, meaningful, creative approaches. Prerequisite: PY 200 (General Psychology). Required of all elementary majors. 3 semester hours credit.

Associate Professor Nadal
Associate Professor Wood

ED 350 Methods and Materials in Elementary Mathematics

Through this course students become acquainted with the purpose and content of the contemporary elementary school mathematics curriculum. Emphasis is placed on a study of a wide variety of effective teaching procedures and instructional materials designed to meet the varying abilities within the elementary school classroom. Prerequisite: PY 200 (General Psychology), and MA 107 (College Mathematics for Elementary Majors). Required of all Elementary majors. 3 semester hours credit. Associate Professor Lindquist
Miss Walker

ED 370 Kindergarten Theory and Methods

This course treats the philosophy, importance, development and guidance of the learning of young children. Opportunity is given for the study of how children learn to live together and gain the experience which will lay the foundation for a feeling of adequacy in a group and the new role of school with rich experiences. Curriculum, methods, materials and facilities are examined and evaluated. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors with Kindergarten-Primary Concentration. 3 semester hours credit. Assistant Professor Doyle

ED 372 Success in Beginning Reading

First, comes an acquaintance with all aspects of current reading and pertinent reading research, to be followed by an exploring of the various ways of applying theory and research in the classroom reading program. Most of the time, however, is spent with pre-reading and initial reading instruction to enable primary-grade teachers to be able to prepare the child for what is to come in reading skill development. Practice and maintenance activities are given much stress as an important aspect of the reading program. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors with Kindergarten-Primary Concentration. 3 semester hours credit. Professor Deasy

ED 390 Supervised Student Teaching in the Campus Schools

The Campus Schools serve as laboratories in which students engage in the directed study of children in learning situations as they are encountered in a modern school. As the study progresses, students participate increasingly in the activities of the school to the point at which they can undertake the duties of the room teacher. Included in this course are several hours of weekly conferences with the supervising teachers, and weekly seminars with specialists in the fields of art, music, speech, and physical education. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors. One-half day for one semester. 6 semester hours credit. Staff

ED 410 Introduction to Special Education

This is a survey course of all phases of special education, emphasizing the program for mentally and physically handicapped children, for emotionally disturbed children and for the academically talented. The slow learner and the perceptually handicapped will receive consideration. Required of all Elementary majors with a Special Education Concentration. 3 semester hours credit.

Assistant Professor DeLeo

ED 411 Methods and Materials in Special Education

In this course special emphasis will be placed on the philosophy, general and specific aims, identification and classification, and curriculum development of the educational program for retarded children. The planning, developing, and guiding of pupil experiences will help to attain the desired pupil outcomes through the functional application of subject matter. Required of all Elementary majors with a Special Education Concentration. 3 semester hours credit.

Assistant Professor DeLeo

ED 420 Educational Measurement

Included in this course is an examination of the development of the testing, measurement, and evaluation movement. A review and evaluation of tests and other evaluative methods needed for the measurement of mental maturity and educational growth in the student's field of specialization, and a study of elementary statistical procedures necessary for their interpretation, complete the course offerings. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors and all Secondary majors with an Education minor. 3 semester hours credit.

Assistant Professor Worden
Mr. ZuWallack

ED 430 Principles and Practices in Guidance

Emphasis will be placed on the philosophy and historical development of the guidance movement; the need for guidance; the nature of guidance services in the schools of today; the personnel, facilities, and procedures involved; and the role of the classroom teacher in guidance. Open to all Seniors. 3 semester hours credit.

Associate Professor Dooley

ED 443 Secondary School Curriculum

Emphasis is placed on the purposes of modern secondary school education and the essential features of the curriculum needed to implement them. Topics will include: organization, historical development, factors affecting trends and issues, core curriculum, planning curriculum guides and organization, and participation in curriculum evaluation and revision. Open to all Seniors. 3 semester hours credit.

Professor Clement

ED 454 Seminar in Elementary Education

This course provides a culmination of all professional experiences in preparation for teaching. Included are a review and evaluation of current elementary school practices, discussion of professional ethics and school law, professional growth opportunities, procedures for securing a teaching position, and preparation for and the responsibilities of the first teaching position. Open to all Senior Elementary majors. 3 semester hours credit. Staff

ED 462 Science and Social Studies Methods and Materials in Elementary Education

This course will focus on the goals of scientific inquiry and responsible citizenship. The establishment of objectives and the selection of appropriate methods, materials, and techniques of planning to meet these goals will be studied. Current trends in the teaching of both science and social studies will be explored. Varied instructional ideas found in the newer programs will receive attention. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors. 3 semester hours credit.

Assistant Professor Farrell
Mr. Thornell

ED 474 Methods and Materials in Primary Education

The course is designed to promote insight into ways of teaching Primary-Grade Children, taking into consideration the basic philosophy of their education and promoting an understanding that each child is a unique individual whose whole personality must be developed. Various phases of effective organization and management are discussed. Teaching school subjects will be stressed, with emphasis being placed on what to teach, how to teach, the importance of skill development, the necessity for drill, and the use of practical creative techniques. Prerequisite: PY 200 (General Psychology). Required of all Elementary majors with Kindergarten-Primary Concentration. 3 semester hours credit.

Assistant Professor Doyle

ED 480 Philosophy of Education

Through research and discussion of primary source material the attempt is made to develop an awareness and understanding of the rich intellectual and cultural foundations of the modern philosophies of education. Prerequisite: PH 380 (Introduction to General Philosophy). Required of all Elementary majors and all Secondary majors with an Education minor. 3 semester hours credit.

Associate Professor Englund
Assistant Professor Joyal
Assistant Professor Fitzgibbons

ED 490 Supervised Teaching in the Public Schools

This period provides opportunity in the public schools for continuous supervised experiences in all classroom activities under regular

classroom conditions. Experience is gained in the study of individual differences, teaching techniques, and classroom management. Supervision is given by the classroom teacher and by members of the college faculty. Students are expected to carry a minimum responsible teaching load equal to 50% of the regular classroom teacher's assignment. Full time for one quarter. Required of all Elementary majors and all Secondary majors with an Education minor. 6 semester hours credit. Staff

DEPARTMENT OF ENGLISH

Professor Harold G. Ridlon, Chairman

Professors: Barbara A. Chellis, Samuel N. Sheinfeld

Associate Professors: Joseph DeRocco, M. Frances Guerin, William S. Jacobson, Mary M. Jarvis, Virginia C. Joki, Charles F. McGinnis, Joseph B. Yokelson

Assistant Professors: Marcia J. Anderson, Harold F. DeLisle, Gutula Krishnamurti, Katherine F. Lomax, James K. Nerney, Tom G. Watson, Clifford A. Wood

Instructors: Charles F. Angell, Dolores E. Brien, John H. Porter, Robert A. Rose, Robert J. Silbernagel, Phyllis B. Toback

ENGLISH

The program of study for English majors aims to give students an acquaintance with the history and background of English and American literature, an understanding of great literary works, and the ability to analyze, interpret, and appreciate what they read.

A grade of C or above in EN 101, 102 is a prerequisite for continuation as an English major. Students majoring in English may well wish to take the following courses: EN 200, or its equivalent in composition above the elementary level; 221, 300, 331 or 332; 341 or 342; a minimum program for the major includes, in addition to EN 101-102, 3 semester hours in each of the following: English literature before 1800; English literature after 1800; and American literature. The total for the major is not less than 24 credits (not including the general education requirements of EN 102-102, and 3 semester hours of literature).

Certain elective courses, listed below with an asterisk, may be given on a quarterly basis, carrying four semester hours credit for a full semester's work, or two semester hours for a terminal quarter's work. When this occurs, the numbering for such courses will be as follows: 330 (328, 329); 340 (338, 339); 350 (348, 349); 353, 354 (355, 356); 360 (358, 359); 365 (363, 364); 370 (368, 369); 380 (378, 379); 386 (384, 385); 390 (388, 389); 392 (393, 394); 395 (396, 397); 400 (401, 402).

EN 101, 102 English Composition

The major objectives of English Composition are to make the student aware of the possibilities of written expression, to instill in the student a sense of responsibility about the use of language, and to provide frequent directed practice in expository prose. In the first semester, the emphasis will be on the study of language and the improvement of writing skills; in the second semester, the emphasis will be on critical writing based on selected readings. Advanced placement is possible in this course. EN 101 is prerequisite to EN 102. 3 semester hours credit for each semester. Staff

EN 200 Advanced Composition

Expository writing is taught through frequent practice, analysis of models, and criticism by instructor and students. 3 semester hours credit. Staff

EN 211, 212 Literary Classics of Western Civilization

Classic literature of Western Civilization will be studied in relation to historical background, but with particular emphasis on literary values. Among the works usually read are Homer's Iliad; tragedies of Aeschylus, Sophocles, and Euripides, Dialogues of Plato, selections from the Bible, Vergil's Aeneid, Dante's Inferno, Chaucer's Canterbury Tales, Cervantes' Don Quixote, plays by Shakespeare, Moliere, Goethe, and Shaw, and one or more modern novels. 3 semester hours credit for each semester. Staff

EN 215 Comparative Drama

A study of plays of different periods dealing with the same mythological or historical themes. Included will be plays on the Oedipus theme, from Sophocles to Cocteau; plays about the House of Atreus, from Aeschylus to Sartre; plays about Antony and Cleopatra, from Shakespeare to Shaw; and plays about Joan of Arc, from Schiller to Anouilh. The larger purpose of the course will be to explore the freedom within limits of an artist who chooses to work with established plot materials. 3 semester hours credit.

Assistant Professor Anderson

EN 221, 222 Major English Writers

This course will emphasize the major figures of English literature from Anglo-Saxon times to the modern period. Authors will be studied in relation to historical background but with particular stress on literary values. 3 semester hours credit for each semester. Staff

EN 225 The Theme of Love

A reading of as many of the works from the following list as there will be time for: Chaucer, Troilus and Criseyde; Donne, Poetry; Shakespeare, Romeo and Juliet, Antony and Cleopatra; Dryden, All for Love; Byron, Don Juan, Cantos I-IV; Bronte, Wuthering Heights; Browning, Poems; Henry James, The American or Portrait of a Lady; Lawrence, Sons and Lovers; Hemingway, A Farewell to Arms. 3 semester hours credit.

Associate Professor Yokelson

EN 230 Creative Writing

This course provides the opportunity for work of a highly individual and creative nature, in fiction, non-fiction, verse, or drama. Suitable models for various genres will be studied, and frequent conferences will be held. 3 semester hours credit.

Assistant Professor DeLisle

EN 231, 232 Major American Writers

A general survey of American Literature from the colonial beginnings to the present. Writers such as Franklin, Edwards, Irving, Poe, Hawthorne, Emerson, Whitman, Dickinson, Twain, James, Frost, Eliot, Faulkner, and Hemingway will be studied in their social and cultural contexts. 3 semester hours credit for each semester. Staff

EN 235 The Short Novel

This course will concern itself with the short novel as a form used by the writers of many countries. Works of Conrad, Dostoevsky, Faulkner, James, Joyce, Kafka, and Mann will be included. 3 semester hours credit. Professor Sheinfeld

EN 241 Shakespeare

This course will consist of a general introduction to Shakespeare's plays set against the background of the times. Representative selections from the tragedies, comedies and histories will be studied in detail. 3 semester hours credit.

Associate Professor McGinnis

EN 305 The History of the English Language

This course will undertake a study of the development of the English language from its origins to the present. Students will be introduced to both Old and Middle English as a basis for understanding Modern American English. 3 semester hours credit. Professor Sheinfeld

EN 311 The Negro in U. S. Literature

Students will read and discuss autobiographies and fiction beginning chronologically with the Life of Frederick Douglass. Particular attention will be paid to Uncle Tom's Cabin, Native Son and Invisible Man. Prerequisite: EN 231 or EN 331. 3 semester hours credit. Professor Chellis

EN 312, 313 Studies in Modern British Fiction

Readings in selected twentieth-century British novelists. First quarter: E. M. Forster and D. H. Lawrence. Second quarter: James Joyce and Graham Greene. 2 semester hours credit per quarter. Associate Professor Yokelson

EN 320 Chaucer

This course is an introduction to Chaucer's life, times, and language. Although emphasis will be placed on the Canterbury Tales, other works will be examined less thoroughly. 3 semester hours credit. Professor Sheinfeld

EN 323 *Linguistics*

This course aims at developing in students an understanding of English syntactic structure based primarily upon the generative-transformational theory of linguistics. There will be lectures and general readings to furnish a broader background of knowledge in this field. 2 semester hours credit per quarter. Professor Sheinfeld

EN 330 *Modern American Fiction*

Selected readings in Fitzgerald, Hemingway, and Faulkner. 3 semester hours credit. Associate Professor Yokelson

EN 331, 332 *United States Literature through the Nineteenth Century*

In the first semester, the writings of the Puritans, Cooper, Brown, Poe, Emerson, Thoreau, Whitman, and Dickinson will be discussed. In the second semester, emphasis will be given to the novels and tales of Hawthorne, Melville, Twain, and James. 3 semester hours credit for each semester. Professor Chellis

EN 338 *The Short Story*

The primary focus will be on the examination of the relationship between form and content in several British, American, and continental short stories. A secondary concern will center on the historical development of the genre. 3 semester hours credit.

Assistant Professor DeLisle

EN 341, 342 *Shakespeare*

In this course selected plays of Shakespeare will be studied. In each quarter three plays, generally two tragedies and one comedy, will be read with attention to both language and thought. 3 semester hours credit for each semester. Professor Sheinfeld

EN 346 *Southern Literary Renaissance*

The course will begin with the Fugitives in the 1930's (Robert Penn Warren, Allen Tate, John Crowe Ransom, and Donald Davidson primarily) and their concern with the problem of the Southern writer's identity as both a Southerner and an artist. From this point, the course will focus on the writings of such contemporary figures as William Faulkner, Tennessee Williams, Katherine Anne Porter, Flannery O'Connor, Carson McCullers, Eudora Welty, and Peter Taylor. 2 semester hours credit per quarter.

Assistant Professor Watson

EN 350 **The Modern English Novel*

This course entails a selective survey of major contributors to the

English novel from Joseph Conrad through the school of the "Angry Young Men." Major attention will be given to the analysis of specific texts. 3 semester hours credit.

Associate Professor Yokelson

*EN 353, 354 *Modern Drama*

This course will consider the main forces in modern drama. Starting with Ibsen, students will read and discuss selected plays of leading dramatists of Europe and America. EN 353, 2 semester hours credit for each quarter; EN 354, 3 semester hours credit.

Associate Professor Guerin

*EN 360 *The Victorian Novel*

This course will concentrate on the major novelists of the 19th century: Dickens, Thackeray, Eliot, Meredith, and Hardy. Attention will be given to biographical and historical background. 3 semester hours credit.

Professor Sheinfeld

*EN 365 *Victorian Prose and Poetry*

The major emphasis will be placed upon the poetry of Tennyson, Browning, and Arnold, but the works of other 19th century poets such as Hopkins and Hardy will also be read and discussed. The essays of Carlyle, Arnold, Newman, Huxley, and others will also be studied. 3 semester hours credit.

Assistant Professor DeLisle

Assistant Professor Nerney

*EN 370 *Seventeenth Century Literature*

This course is an introduction to the prose and poetry of the Seventeenth Century in England, exclusive of Milton. Such writers as Donne, Jonson, Bacon, Burton, Browne, and Dryden will be examined, and various persistent elements, such as the classical influence, will be explored. 3 semester hours credit.

Associate Professor McGinnis

*EN 380 *Milton*

In this course the emphasis will be placed on the main poetical works of Milton: Paradise Lost, Paradise Regained, and Samson Agonistes. However, certain of the minor poetic works, as well as selected prose, will be read also. 3 semester hours credit.

Professor Ridlon

EN 383 Modern Irish Literature

This course will include Irish writing from 1890 to the present, with special emphasis on the works of Yeats, Synge, O'Casey, Joyce, O'Connor, and O'Faolain. 2 semester hours credit per quarter.

Assistant Professor Gannon

EN 386 **English Romantic Poets*

In this course the chief works of Wordsworth, Coleridge, Byron, Shelley, and Keats will be studied. Emphasis will be placed on textual analysis, but consideration will be given to historical background and to developments in philosophy and esthetic theory which have a direct bearing on Romantic poetry. 2 semester hours credit per quarter.

Associate Professor DeRocco

EN 387 *Indo-Anglian Literature*

This course will deal with literature written in English by Indian writers. The emphasis will be on fiction, particularly the novels and short stories dealing with the conflict between old and new in Indian national life. 2 semester hours credit per quarter.

Assistant Professor Krishnamurti

EN 391 *Modern Literary Criticism*

This course will explore several twentieth-century critical approaches to literary analysis, interpretation, and evaluation. Particular attention will be given to literary concepts derived from psychoanalysis, sociology, anthropology, semantics, philosophy, and theology. Such topics as existentialist criticism, the "new criticism," and the theory of myth and symbol will be considered. 3 semester hours credit.

Associate Professor DeRocco

EN 393 *Modern British Poetry*

This course covers the major British poets of the twentieth century, with particular emphasis on the works of Hopkins, Yeats, Eliot and Thomas. 3 semester hours credit.

Associate Professor Joki

EN 394 *Modern American Poetry*

This course covers the major American poets of the twentieth century, with particular emphasis on the works of Robinson, Frost, Crane, Auden, Williams and Stevens. 3 semester hours credit.

Associate Professor Joki

EN 395 *Eighteenth Century Literature*

This course concentrates on the writings of the major literary figures, Swift, Pope, Dr. Johnson, and Blake, and the novelists, Defoe, Fielding, Richardson, Sterne, and Jane Austen. 2 semester hours credit per quarter.

Associate Professor Jacobson

EN 400 **Techniques of Literary Research*

This course offers training in research procedures, with special reference to the materials and methods of literary study and publication. Various critical approaches to literature will be examined,

and some evaluation of scholarly procedure will be made. 3 semester hours credit. Staff

EN 492 Reading and Research

This course offers the opportunity for independent study under the guidance of individual members of the department. To be considered for admission, one must be a senior of honor standing and must submit a general proposal for a topic or area of study. Credit arranged. Staff

EN 495 Seminar

The topics explored and the areas covered in this course will vary from year to year. In 1969-1970, the topic will be "Studies in Twain and James." Prerequisite: EN 332. 3 semester hours credit. Professor Chellis

DEPARTMENT OF HEALTH AND PHYSICAL
EDUCATION FOR MEN

Associate Professor Harry A. Lehmann, Chairman

Associate Professor: Edward C. Swenson

Assistant Professor: Thomas A. Knudson

Instructors: Edward A. Braun, Peter Mazzaferro, Joseph A. Yeskewicz

This department offers practice and theory courses designed to improve physical fitness, provides experience in a variety of team and individual activities, and develops basic concepts in health, first aid, and physical education. The opportunity is provided for men to participate in a variety of intramural and intercollegiate athletic activities and to prepare for coaching several team sports.

All men in the Bachelor of Arts Curriculum are required to complete successfully the following courses: HM 110, 123, or 124, 223 and 224. All men in the Bachelor of Science curriculum are required to complete successfully the following courses: HM 110, 123 or 124, 223, 224, 230, and 300.

HM 110 Personal Health

This course is designed to enable the student to develop principles of good health based on scientific research. It provides for the study of health as it concerns the adult: common attitudes and practices and their importance in happy and effective living, significant diseases, and public health responsibilities. 2 semester hours credit.

Associate Professor Lehmann

HM 123, 124 Physical Education Activities for Freshmen

This course is designed to improve physical fitness and to help the individual student to develop fundamental skills, knowledge and appreciation of physical education activities. Individual and team activities and aquatics are included in the course. 2 periods weekly for each semester. No credit.

Staff

HM 223, 224 Physical Education Activities for Sophomores

Continued emphasis is placed on physical fitness and the development of fundamental skills. Aquatics and other activities of a recreational nature are stressed. 2 periods weekly for each semester. No credit.

Staff

HM 230 Standard First Aid

Emphasis is placed on the prevention of accidents as well as on the immediate treatment of injuries and illnesses. Upon satisfactory completion of the course, students will receive the American Red

Cross Standard First Aid certificate. The course is open to Bachelor of Arts students on an elective basis. 1 semester hour credit.
Associate Professor Swenson

HM 300 Orientation in Health and Physical Education

This course is designed to acquaint students preparing for teaching careers with the role of health and physical education in the public school curriculum. Emphasis is placed on the health and physical education program in the elementary school and on the intramural and interscholastic program at the secondary school level. This course is open to Bachelor of Arts students during the junior or senior year on an elective basis. 1 semester hour credit.

Assistant Professor Knudson
Mr. Mazzaferro

HM 301 Methods and Techniques in Coaching Football

This course is designed to prepare students to assume football coaching responsibilities in the public schools. Emphasis is placed on fundamental skills and on offensive and defensive team play. Prerequisite: permission of the Instructor; open to Juniors and Seniors. 2 periods weekly for one quarter. 1 semester hour credit.
Mr. Mazzaferro

HM 302 Methods and Techniques in Coaching Baseball

This course is designed to prepare students to assume baseball coaching responsibilities in the public schools. Emphasis is placed on batting, pitching, and the fundamentals needed at all other positions. Offensive and defensive team play is also covered. Prerequisite: permission of the Instructor; open to Juniors and Seniors. 2 periods weekly for one quarter. 1 semester hour credit.
Associate Professor Lehmann

HM 310 Methods and Techniques in Coaching Basketball

This course is designed to prepare students to assume basketball coaching responsibilities in the public schools. Emphasis is placed on fundamental skills and on offensive and defensive team play. Prerequisite: permission of the Instructor; open to Juniors and Seniors. 2 periods weekly for one quarter. 1 semester hour credit.
Assistant Professor Knudson

HM 320 Methods and Techniques in Coaching Soccer and Track and Field

This course is designed to prepare students to assume coaching responsibilities in soccer and track and field in the public schools. Emphasis is placed on soccer fundamentals and team play and on coaching the various track and field events. Prerequisite: permission of the Instructor; open to Juniors and Seniors. 2 periods weekly for one quarter. 1 semester hour credit.
Associate Professor Swenson

DEPARTMENT OF
HEALTH AND PHYSICAL EDUCATION
FOR WOMEN

Professor Mary J. Moriarty, Chairman

Associate Professor: Mary Lou Thornburg

Assistant Professors: Patricia A. Phillips, Sharon Tufts

Instructors: Ann O. Coakley, Kathleen Ekas, Regina M. Gross,
Virginia L. Hogg, Shirley J. Krasinski, Marjorie A. Rugen,
Hazel L. Schopp, Johanne Smith, Cora M. Wells, Carol A.
Wolfgram, Lynne Yeamans

The Department of Health and Physical Education for Women offers instruction in recreational skills, physical conditioning, and health for all college women. Regular participation in activities is encouraged through required courses and extra-class activities in order that the student may develop interest and skills that she can enjoy in her leisure time.

The Department of Health and Physical Education offers a professional curriculum in Health and Physical Education for Women. The student completing this course receives a Bachelor of Science in Education degree, with a major in Health and Physical Education. The basic program is planned to satisfy the needs of the student who will teach in the public schools; it includes sufficient work in health education to enable her to qualify for positions which require the teaching of both physical education and health education. Through varied activities in the classrooms, the gymnasias, and the playing fields, the students are given the opportunity to acquire scientific knowledge, specialized skills, principles and evaluative procedures.

Service Courses

HE 110 Personal Health

The aim of this course is to help the freshman student develop standards and principles of good health for the adult. It provides for study in the following areas: 1) attitudes and practices as they influence effective living; 2) common adult health problems; 3) community health service and adult responsibility. 2 semester hours credit.

Assistant Professor Phillips
Mrs. Hogg

HPE-W Physical Education Activities for Freshmen and Sophomores

Team and individual sports: archery (112), bowling (100), basketball (105, 205), badminton (150, 250), field hockey (107), folk dance (109), golf (120), lacrosse (104), skiing (108), tennis (114, 214), volleyball (140), and softball (122); rhythmic activities: folk dance (109), modern dance (103), and square dance (110); gymnastics (160, 260); individual program (200); aquatics: swimming (130, 230), life saving (135), and water safety instructor (232). Opportunities are provided for students to select activities according to their needs, interests, and individual abilities. The second course number after an activity indicates an advanced course. Swimming is required of all students who do not show a specific level of proficiency. 2 periods weekly for three semesters; no credit.

Miss Coakley
and Staff

PE 330 *Physical Education for the Classroom Teacher*

A course designed to acquaint the classroom teacher with the philosophy of physical education; to present methods, materials, and organizational procedures in physical education at the elementary level; and to offer that first aid information which experience has shown to be of value to the classroom teacher. Provision is made for visits to the campus laboratory school. 2 semester hours credit.

Miss Rugen
Mrs. Schopp

HE 410 *School Health and Safety Education*

A brief study is made of human growth and development with special reference to the needs of the child in relation to his health and physical activity. The responsibility of the school in meeting these needs is analyzed and the total program in health and safety is studied with emphasis on the part played by the classroom teacher. Methods and materials for teaching at various grade levels are studied in light of educational philosophy, principles, and objectives. 2 semester hours credit.

Mrs. Hogg

MAJOR CURRICULUM IN HEALTH AND PHYSICAL EDUCATION FOR WOMEN

PE *Physical Education Activities for Freshmen*

Team and individual sports: basketball (131), field hockey (133), lacrosse (128), soccer (138), and badminton (126); rhythmic activi-

ties; creative rhythms (141), folk dance (142), modern dance (144), and square dance (149); gymnastics (106); swimming (125); track and field (127). Beginning skills and techniques of play are emphasized in the team and individual sports classes. Creative rhythms involves movement exploration with rhythmic accompaniment for the elementary school level. Folk dance introduces the steps and teaching techniques of dances of the other lands for elementary school level. Modern dance involves basic dance techniques and the creation of single dances. Square dance introduces the structure, formation, and current basics and figures used in apparatus skills with the important safety factors. Swimming follows the American Red Cross progressions according to individual ability. Track and field introduces all events as well as analyzing skills, techniques of teaching, and the conduct of a meet. 6 periods weekly for 2 semesters; 6 semester hours credit. Staff

HE 151 Personal and Community Health

This course helps the student develop standards and principles of good health for the adult. It provides for study in the following areas: 1) attitudes and practices as they influence effective living; 2) common adult health problems; 3) community health standards and services; 4) special problems of concern in the area of community health to a democratic society. 3 semester hours credit.

Assistant Professor Phillips

HE 161 Introduction to Physical Education

This is a comprehensive freshman course providing basic information concerning the scope and significance of physical education as a profession. 2 semester hours credit.

Miss Coakley

HE 171, 172 Anatomy

This course includes a fundamental study of the human body and its parts, with special emphasis on bones, muscles, and tissues. 171 is prerequisite to 172. 2 periods weekly for 2 semesters; 4 semester hours credit.

Professor Moriarty

PE Physical Education Activities for Sophomores

Team and individual sports: tennis (228), softball (238), badminton (226), and lacrosse (246); rhythmic activities: folk dance (241), modern dance (244); gymnastics (202); and games (211). Tennis and softball introduce beginning skills and techniques of play. Badminton emphasizes advanced skills, strategy in both singles and doubles play, and teaching techniques. Lacrosse continues the development of skills, elements of team play and strategy, and teaching techniques. Folk dance introduces steps and teaching techniques of dances of other countries for the secondary level.

Modern dance includes advanced dance techniques and the beginning elements of composition. Gymnastics continues the development of basic and intermediate tumbling and apparatus skills and safety factors with increased emphasis on teaching techniques. Games presents the skills and teaching techniques for games of low and high organization at both the elementary and secondary school levels. Prerequisites: Badminton (126), lacrosse (148), folk dance (142), modern dance (144), gymnastics (106). 4 periods weekly both semesters; 4 semester hours credit. Staff

HE 254 Methods in Health and First Aid

A study is made of the responsibility of the school for the health education of the growing child with emphasis upon the role of the teacher. Emphasis will be placed upon selection of health content based on the needs of the child, and the analysis of the learning and teaching process as applied to health in the light of modern educational philosophy. The development of safety consciousness as well as skill in caring for injuries will be covered. 3 semester hours credit.

Assistant Professor Phillips

Miss Rugen

PE 261 Officiating

General techniques of officiating are included with emphasis on field hockey and basketball. Practical as well as theoretical examinations are included with opportunities to earn recognized ratings. Prerequisites: field hockey (133) or permission of the Instructor. 4 periods weekly; 3 semester hours credit.

Associate Professor Thornburg

Mrs. Schopp

Miss Gross

PE.265 Elementary Physical Education

This course suggests techniques and methods for teaching appropriate activities at the different grade levels. Practical application of teaching principles is carried on, using elementary grade classes from the College Laboratory School. 4 periods weekly; 3 semester hours credit.

Mrs. Schopp

PE Physical Education Activities for Juniors

Team and individual sports: golf(321), tennis (328), basketball (332), and field hockey (333); swimming (323); gymnastics (308); square dance (347); and an opportunity to elect an activity (348). Golf stresses skill development and teaching techniques. Tennis includes advanced skills, strategy in singles and doubles play, and teaching techniques. Field hockey and basketball develop team play, strategy, advanced skills, and coaching techniques. Swimming

continues the individual skill development. Gymnastics emphasized teaching the intermediate level and the composition of routines in all areas. Square dance presents opportunities for the student to learn to call basics with stress given to voice, styling, timing, and techniques of teaching. Prerequisites: tennis (228), basketball (131), field hockey (133), swimming (125), gymnastics (106, 202), square dance (149). 4 periods weekly both semesters; 4 semester hours credit. Staff

PE 352 Adapted Physical Education

This course is designed to introduce to the student the teaching techniques and the adaptation of physical education activities to meet the needs, interests and abilities of handicapped children and to provide information pertaining to the nature of some of the common types of handicapping conditions. Practical application will be offered using classes from nearby schools and hospitals. 4 periods weekly; 3 semester hours credit. Miss Smith

PE 363 Secondary School Physical Education

The learning patterns, educational philosophies, and modern principles of concern to the secondary school physical education teacher are explored. Observation experiences of several types are provided. Prerequisite: PE 265 (Elementary Physical Education). 3 semester hours credit. Associate Professor Thornburg

PE 367 Evaluation in Physical Education

Through the evaluation and use of a variety of tests, the student learns to apply the fundamental principles of measurement in physical education. Opportunities are provided for the administration and scoring of tests as well as interpretation and practical application of the tests results. 4 periods weekly; 3 semester hours credit. Miss Wolfram

HE 372 Applied Anatomy and Kinesiology

This course includes detailed analyses and the application of anatomical knowledge and mechanical principles to fundamental muscular movements in athletic and rhythmic activities. 3 semester hours credit. Assistant Professor Tufts

ED 390 Supervised Student Teaching in the Campus Laboratory School

Students engage in supervised teaching experiences in the major areas of physical education for elementary school children during a weekly laboratory period. Units of skill learning are developed and structured to correlate with the physical education program at the campus school. Open to Juniors majoring in Health and Physical Education. 3 semester hours credit. Mrs. Schopp and Staff

PE Physical Education Activities for Seniors

Team and individual sports: archery (425), volleyball (439), bowling (444), golf (422); gymnastics (405); and three electives (446), 447, 448). Bowling emphasizes basic skills and scoring techniques of candlepin bowling with an exposure to duck pin and ten pin bowling. Volleyball involves basic and advanced skills, scoring, officiating, strategy, and teaching techniques. Gymnastics is oriented for the beginning teacher, with emphasis on teaching progressions and coaching techniques. Golf II provides an opportunity to employ the basic skills on a golf course. Archery includes beginning skills and teaching techniques. Prerequisites: golf (321); gymnastics (106, 202, 308). 4 periods weekly both semesters; 4 semester hours credit. Staff

HE 451 School Health Administration and Safety

Emphasis is placed upon the school personnel's responsibility for providing a healthful environment, good health services, and adequate instruction in health education. The organization and content of the program in health are studied and discussed. The need for health guidance to meet the needs of all the children including exceptional children, is stressed. 3 semester hours credit.

Professor Moriarty

PE 465 Administration and Supervision of Physical Education

The philosophies, policies and procedures of the organization, administration and supervision of physical education programs are discussed. Special attention is given to pertinent problems of the contemporary physical educator. 3 semester hours credit.

Miss Coakley

PE 467 Problems in Health and Physical Education

Research techniques are introduced and opportunities are provided to utilize these techniques through individual projects. Both oral and written presentations are made on current topics in health and physical education. 3 semester hours credit.

Associate Professor Thornburg
Staff

PE 471 Physiology of Exercise

This course includes the study of the function of various body systems their interrelationships, and adjustment during exercise. Current research is incorporated in the study of fatigue, training, and fitness. An opportunity for individual investigation of problems of interest is offered. 3 semester hours credit.

Assistant Professor Tufts

PE 330 Physical Education for the Classroom Teacher

PE 333 Rhythmic Analysis in Dance and Related Movement

A definitive analysis of the rhythmic structure employed in musical composition will be studied. Emphasis will be placed on the relationship of rhythm to basic dance skills, the composition of dances, and all motor skills that may be performed to music or to rhythm. Methods and techniques of teaching the various forms of dance such as folk, round, and square dance will be stressed. Prerequisites: 3 semesters of Physical Education Activities. 3 semester hours credit.

Assistant Professor Phillips

PE 335 Analysis of Movement Skills for Elementary Schools

A course designed to recognize correct fundamental movement skills, sport skills, and self-testing activities. The student will have an opportunity to analyze individual performance and to examine various techniques used in developing skills. Fitness tests and motor skill tests will be surveyed with application to performance at the various grade levels. The course will require lecture and directed laboratory experiences. Prerequisite: 3 semesters of Physical Education Activities and PE 330 (Physical Education for the Classroom Teacher) or PE 370 (Theory and Practice of Physical Education in the Elementary School UG). Two lecture periods and two laboratory periods weekly. 3 semester hours credit.

Miss Krasinski

PE 420 Scientific Foundations of Physical Education

Integration of the concepts of anatomy, kinesiology, and physiology of exercise in conducting a program of physical education in the elementary school. Application is made to the characteristics of growth and development of the children in structuring muscular activity to their needs. Prerequisites: HE 110 (Personal Health), PE 330 (Physical Education for the Classroom Teacher), and HE 410 (School Health and Safety Education). 3 semester hours credit.

Assistant Professor Tufts

ELECTIVES

PE 340 Recreation in the United States

The course covers the history of recreation and its impact on society today and in the future. Other areas will include: school camping, camp counseling, outdoor recreation, and recreation in the elementary school program. 3 semester hours credit.

Miss Gross

PE 261 Officiating

DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

Professor Jordan D. Fiore, Chairman

Commonwealth Professor: Annabelle Melville

Professors: Ralph S. Bates, Jane Herrick, Stephanie O. Husek

Associate Professors: William R. Cole, Jr., Donald L. Keay,
Mary Noel, Maurice J. Rotstein, Benjamin A. Spence

Assistant Professors: Guy C. Clifford, Gerald J. Doiron, Dennis
L. Lythgoe, John F. Myers, Arthur C. Oien

Instructors: Duane L. Christensen, Lucille O'Connell, Philip T.
Silvia, Jean F. Stonehouse, Alfred Y. Wolff, Richard C. Yin

The department of History and Political Science has four objectives: 1) to make an effective contribution to the general education program by offering history courses to all students in the first two years; 2) to give adequate preparation for students planning to teach history on the secondary level; 3) to provide a breadth in history which will enable students to do graduate work in the field of history; and 4) to offer enough advanced courses in history to students who are majoring in the elementary curriculum to enable them to enrich the program of teaching history at that level.

HI 111 Western Civilization to 1715

This course surveys Western civilization from ancient times to 1715. Ancient peoples are considered in the light of their contributions to civilization. From the fall of Rome to the eighteenth century, emphasis is placed upon the following subjects: the rise of the Christian Church; the Middle Ages, Christian and Feudal; the Byzantine World; the Moslem World; the Holy Roman Empire; the development of state systems and the struggles for power; the Renaissance; the Protestant and Catholic Reformations. 3 semester hours credit.
Staff

HI 112 Western Civilization since 1715

Beginning with the rise of parliamentary control in England and the old regime in France this course is concerned with the rise of Prussia; the westernization of Russia; the growth of science and the spread of industrialism; eighteenth and nineteenth century thought; the Enlightenment; the Age of Revolutions; the new nationalism and imperialism of the nineteenth century; the two World Wars; internationalism and world organization. Prerequisite: HI111 (Western Civilization to 1715). 3 semester hours credit.
Staff

HI 221 United States History and Constitutions to 1865

The growth of the United States is examined from the discovery of America to the end of the Civil War. The following topics are studied: the age of exploration and discovery; the English colonial

and provincial periods; the age of the American Revolution; the constitutions of the United States and of the Commonwealth of Massachusetts; the early national period; Jeffersonian democracy; the age of Andrew Jackson; westward expansion, sectionalism, and slavery; the causes of and the course of the Civil War. 3 semester hours credit. Staff

HI 222 United States History since 1865

This course continues the study begun in HI 221. The following topics are studied: reconstruction; problems of economic expansion from 1865 to 1900; financial and monetary problems; the United States as world power; the Progressive era; and political, military, and economic history of the twentieth century. 3 semester hours credit. Staff

HI 271 Introduction to Political Science

In this course a study of the ideas of major political thinkers of the ancient, medieval and modern eras serves as the basis for a better appreciation of the history of Western political thought and of our political heritage and provides a deeper understanding of basic political concepts such as the state, law, liberty, power and justice. Attention is given to the relation of the state and the individual. Excerpts from the works of each political thinker are assigned. 3 semester hours credit. Assistant Professor Clifford

HI 272 American Government: The Federal System

In this course the political ideas underlying the U.S. constitution are examined as a basis for further inquiry into the authority, organization, functions and decision-making of the institutions of government in the U.S. Attention is principally given the federal government although state and local governments receive some consideration as well. A study of individual liberties and rights and citizen participation in the political process is included. 3 semester hours credit. Assistant Professor Clifford

HI 273 U. S. and Massachusetts Constitutions

In this course the constitutions of the United States and of the Commonwealth of Massachusetts will be studied. The structure of government and the rights and responsibilities of citizens as promised by the constitutions will be considered. This course is required of all students who do not elect HI 221 (U.S. History and Constitutions to 1865). 1 semester hour credit.

Assistant Professor Clifford

HI 315 Nineteenth Century Europe

This course is primarily concerned with the political, social, and

intellectual development in the principal countries of Europe from the rise of Napoleon to the end of the century. 3 semester hours credit.

Assistant Professor Lythgoe

HI 316 Twentieth Century Europe

This course is concerned with the causes of World War I, the course of the war and its aftermath. Political and social developments and economic and ideological trends between the wars will be studied. World War II and post-war international relations will be covered. 3 semester hours credit.

Assistant Professor Lythgoe

HI 317 British Political History Since 1603

This course concerns itself with the political development of England and the British empire from the accession of the Stuarts to the present day. Chronologically parallel to the survey of American history, the course stresses those factors which show the relationship of American-British development of modern times. Although primarily concerned with political factors, this survey does not exclude economic and social factors, particularly when the history of ideas is at issue. 3 semester hours credit.

Commonwealth Professor Melville

HI 318 British Empire and Commonwealth

The development of British imperial policy and colonial problems from the eighteenth century to the present will be covered. Emphasis will be placed upon British-Indian relations, British imperialism in Africa, and the development and aims of the Commonwealth as an institution. 3 semester hours credit.

Commonwealth Professor Melville

HI 319 Topics in British History

This course is designed primarily to serve the needs of majors in English for an understanding of political and social forces which have affected the development of English literature. 3 semester hours credit.

Commonwealth Professor Melville

HI 321 Recent American History

The development of modern America through the isolationism and boom of the 1920's, the Great Depression, the New Deal, World War II, and the role of the United States in world affairs in the post-war era will be considered. 3 semester hours credit.

Associate Professor Spence

HI 325 American Labor History

This course will examine the history of the labor movement in the

United States during both the pre-industrial and industrial periods. Emphasis will be placed on the reciprocal relationships of workingmen, Negroes, immigrants, and urbanization and industrialization. 3 semester hours credit. Associate Professor Cole

HI 333 Latin America: The Colonial Period

This course is concerned with the development of Spanish and Portuguese civilization in Latin America in the period between the discovery of America and the successful revolts against Spain early in the nineteenth century. 3 semester hours credit.

Professor Herrick

HI 334 Latin America: The National Period

This course studies the Latin American countries from the time that they achieved independence to the present. Prerequisite: HI 333 (Latin America: The Colonial Period). 3 semester hours credit.

Professor Herrick

HI 343 Ancient World to 336 B.C.

A study of prehistoric times, the early civilizations, and Greece from the Bronze Age to the death of Alexander the Great will be offered. 3 semester hours credit.

Associate Professor Noel

HI 344 Roman History

This course covers the history of Rome from ancient times to the reign of Justinian. Emphasis will be placed on the expansion of Rome from city to empire; the Hellenistic East; imperial administration and law; the origin and spread of Christianity; the decline of the Empire and the raids of the barbarians. 3 semester hours credit.

Associate Professor Noel

HI 353 Historiography

This course is concerned with the development of historical writing; the interpretation of history as illustrated by major historians; the evaluation of historical writings through professional journals and the method of the book review. Membership in the course is limited to fifteen. Students are admitted with the consent of the Department Chairman and the Instructor. Students who complete this course are expected to elect HI 354 (Study and Writing of History). 3 semester hours credit.

Commonwealth Professor Melville

HI 354 Study and Writing of History

This course is concerned with the development of the techniques of historical research and the preparation of papers which require these techniques. Varieties, analysis, and evaluation of source

material will be stressed. Prerequisite: HI 353 (Historiography) or its equivalent. Students are admitted with the consent of the Departmental Chairman and the Instructor. 3 semester hours credit. Commonwealth Professor Melville

HI 371 Comparative Government

A comparative study of the origin and development of governments, parties, political ideologies, and social policies in the United Kingdom, the U.S.S.R., France, and Japan. Prerequisite: HI 271 (Introduction to Political Science), and HI 272 (American Government: The Federal System), or equivalent courses. 3 semester hours credit. Mr. Yin

HI 372 American Government: State and Local Government

In this course the authority, organization, functions and decision making processes of state and local governments in the U.S. is examined. Although the similarities and differences in state and local government and politics throughout the nation are studied, emphasis is given to the government and politics of Massachusetts on the state and local levels. The relationships between the national, state and local governments are considered. 3 semester hours credit. Assistant Professor Clifford

HI 411 History of Russia

This course provides a survey of the early period as background for the emergence of modern Russia. Emphasis is placed on the political, economical, social, and intellectual developments which resulted in the establishment of the Soviet state. An analysis of available evidence for a better understanding of the political structure and the domestic and foreign policies of the present regime is also offered. 3 periods weekly for one and one-half semesters; 4.5 semester hours credit. Professor Husek

HI 413 Contemporary Affairs

Current sociological, economic, political, military, and scientific events are studied in publications and by means of television and radio broadcasts. The course also attempts an evaluation of the impact of science on contemporary society. 3 semester hours credit. Professor Bates

HI 417 Modern France

After a survey of the Old Regime and a study of the Revolution and Napoleonic era, this course traces the constitutional changes which accompanied the economic and social developments of the nineteenth and twentieth centuries. 3 semester hours credit. Associate Professor Rotstein

HI 419 Intellectual History of Modern Europe

This course will examine the main currents in European intellectual and cultural life from the seventeenth century down to contemporary times. 3 periods weekly for one and one-half semesters; 4.5 semester hours credit. Associate Professor Rotstein

HI 421 History of Massachusetts

In this course the English background of the Pilgrims and Puritans, the Plymouth Colony and Massachusetts Bay settlements, Puritanism and the Massachusetts theocracy, Massachusetts in the Provincial Period, and the American Revolution will be studied. In addition to a consideration of political history, Massachusetts is studied in the national period in terms of constitutional development, population shifts, industrial growth, the effects of immigration, and the economic changes of the twentieth century. The organization of the state government and the constitution are also studied. Much use will be made of primary source materials in developing the course. 3 semester hours credit.

Professor Fiore

HI 425 Social and Intellectual History of the United States to 1914

This course will consider the economic, social and cultural development of the American people to the eve of the first World War. The development of a distinctly American character, the transformation from an agricultural to an industrial society, and the spread of democracy will be studied. The life of the people rather than political events will be stressed. 3 periods weekly for one and one-half semesters; 4.5 semester hours credit.

Professor Fiore

HI 430 Europe in the Middle Ages

The period covered is from the fall of Rome to the Renaissance of the fifteenth and sixteenth centuries. Topics included are the German invasion, the rise of Christianity, the expansion of Islam, the development of the Byzantine state, the rise of nations, the conflict between church and state, and the cultural development of medieval Europe. 3 semester hours credit.

Associate Professor Keay

HI 432 Modern European Imperialism

This course considers the motives, methods, and results of imperialism in the nineteenth and twentieth centuries. The partition of Africa and the penetration of Asia will be considered as contrasting phases in the expansion of Europe. 3 semester hours credit.

Assistant Professor Doiron

HI 436 The Renaissance and the Reformation

This course traces developments in western Europe from the decline of feudal institutions to the emergence of the modern state system. Attention is focused on the cultural and intellectual currents which accompanied economic, social and political changes. Prerequisite: completion of the survey course in Western Civilization. 3 semester hours credit.

Associate Professor Rotstein

HI 441 American Negro History

This course traces the background of the American Negro, his West African origins, the development of the slave trade, the Negro as an economic and social factor in the development of America, the Negro in the period of Reconstruction, and the role of the Negro in American life for the past century. 3 semester hours credit.

Mrs. O'Connell

HI 452 Senior Seminar in History

Each senior will elect a seminar in an area of history. Seminars will be offered in various aspects or periods of United States history, in European history, and in Latin American history. The number of students in each seminar will be limited. Students will be admitted to a seminar with the approval of the instructor and the chairman of the department. 3 hours weekly. 3 semester hours credit.

Professor Fiore and Staff

HI 461 Far Eastern History

This course deals primarily with the history of China and Japan during the last century. Some consideration is also given to the problems of the Philippines, Indonesia, Southeast Asia, India, and Australia. 3 periods weekly for one and one-half semesters; 4.5 semester hours credit.

Mr. Yin

HI 471 International Relations

Following a consideration of the basic factors in international relations, the development of the western state system, and the principles of balance of power, nationalism, and imperialism, the course covers the establishment of international organizations in modern times and the post-war regional organizations. Each student makes a study of the contemporary international problems of a country or region. 3 periods weekly for one and one-half semesters; 4.5 semester hours credit.

Mr. Yin

HI 481 United States Foreign Relations to 1898

This course will trace the history of the foreign relations of the

United States from the American Revolution to the end of the Spanish-American War. Successful prior completion of a course in United States history is recommended. 3 semester hours credit.
Professor Bates

HI 482 United States Foreign Relations since 1898

This course considers the background of the Spanish-American War, imperialism, the Open Door policy in Asia, Latin-American relations, the background and the results of World War I and World War II, and the diplomacy of the Cold War. 3 semester hours credit.
Professor Bates

DEPARTMENT OF INSTRUCTIONAL MEDIA

Professor Henry Rosen, Chairman

Assistant Professor: Thomas S. Lee

Instructor: Robert F. Ward

AV 310 Audiovisual Methods and Materials

An introduction to audiovisual methods and materials designed to improve teaching, this course includes instruction in and application of still pictures motion pictures, slides, filmstrips, recordings, radio, television, three-dimensional materials, field trips, flannel boards, chalk boards, and all types of teaching machines. Instruction in sources of teaching aids and supplementary materials accompanies the laboratory procedures. 1 double laboratory period and 1 lecture per week for 1 semester. 2 semester hours credit.

Professor Rosen

Assistant Professor Lee

Mr. Ward

AV 311 Audiovisual Methods and Materials for Special Education

This course covers the same materials as AV 310 with the addition of guided research in their application to Special Education. 3 semester hours credit.

Staff

AV 320 Graphics for Instructional Media

This course is designed to give instruction in the graphic arts pertaining to new technology in education. The student will learn the techniques of mechanical lettering, hand lettering, and layout techniques. Students will prepare materials by color-lift Thermofax, Tecnifax, A-O, and will learn the basic techniques for copying 2 X 2 slides. 3 semester hours credit.

Assistant Professor Lee

AV 420 Advanced Audiovisual Techniques

This is a directed study course. The student will concentrate on the coordination of audiovisual materials in his field of choice and will build a course of study in the chosen concentration. Prerequisite: AV 310 (Audiovisual Methods and Materials). Credit and hours to be arranged.

Professor Rosen

AV 424 Seminar in Instructional Media

This course will cover systematically a review of the literature, techniques and technology in Instructional Media. The student will research the above areas and report to the seminar group for discussion and analysis. Prerequisite: AV 310 (Audiovisual Methods and Materials), AV 420 (Advanced Audiovisual Techniques), and

AV 452 (Science of Photography in Education); or permission of the
Instructor. 3 semester hours credit. Professor Rosen

AV 452 Science of Photography in Education

This course is designed to give instruction in the basic philosophy, educational planning, and techniques of preparation of photographic instructional materials. Preparation of color and black and white slides, stills, filmstrips, transparencies for overhead projection, and photography and darkroom techniques. 3 semester hours credit.

Assistant Professor Lee

Mr. Ward

DEPARTMENT OF MATHEMATICS

Associate Professor Joseph B. Chiccarelli, Chairman

Associate Professors: Murray Abramson, Robert J. Bent, Robert E. Lemos, Henry M. Mailloux

Assistant Professors: Walter J. Gleason, Michael Makokian, Richard W. Quindley, Ignatius P. Scalisi, Donald C. Simpson

Instructors: Frank J. Lambiase, Thomas E. Moore, Robert F. Sutherland

Since mathematics is both a cultural and technical field of study, the curriculum is planned with the following objectives: 1) to give the student an introduction to mathematics as an important area of human thought; 2) to give adequate preparation for students planning to teach mathematics on the secondary level; 3) to serve the needs of students in fields which rely on mathematics, e.g., experimental sciences, social sciences, and elementary education; 4) to give preparation to students for graduate study in mathematics and related fields.

Mathematics majors who are enrolled in the program leading to the degree of Bachelor of Arts, in addition to completing General Requirements, must satisfactorily complete the following courses: MA 101, 102, 201, 202, 301, 401 and six electives from MA 302, 303, 304, 308, 316, 402, 403, 406, 407, 408, 412, 415, 416.

The language requirement is satisfied by French, German, or Russian. A grade of C or above in MA 102 is required for continuation as a mathematics major.

A concentration in mathematics for students majoring in Elementary Education is comprised of three courses to be selected from MA 110, 322, 421, 422, 425.

MA 100 Precalculus Mathematics

The real number system, mathematical induction, elementary functions and their graphs, the trigonometric functions and analytic trigonometry, complex numbers, theory of equations, analytic geometry of the line and conic sections. Required of Freshman candidates for a degree in mathematics who do not satisfy departmental prerequisites for MA 101. 4 semester hours credit.

Associate Professor Lemos

MA 101, 102 Calculus with Analytic Geometry I-II

Inequalities, functions and their graphs, the line and linear inequalities, limits and continuity, differentiation of algebraic functions and applications. The definite integral and applications, analytic geometry of the conic sections, the trigonometric and ex-

ponential functions, parametric equations and polar coordinates, calculus of vectors in a plane. Required of all Freshman candidates for a degree in Mathematics, Physics, or Chemistry. Open to other qualified freshmen with consent of the Department Chairman. 4 semester hours credit for each semester. Staff

MA 103, 104 Mathematical Analysis I-II

Sets, algebraic functions and their graphs, topics from algebra, trigonometric functions and analytic trigonometry, logarithmic and exponential functions, analytic geometry of the line and conic sections, differentiation and integration of algebraic functions and their applications. Required of all Freshman candidates for a degree in Biology or Earth Science. 3 semester hours credit for each semester.

Associate Professor Mailloux
Mr. Lambiase

MA 105 College Mathematics I

Set theory, elementary logic, modulo systems, introduction to groups and fields with emphasis on number systems, finite geometry. Required of all Freshman non-science majors. 3 semester hours credit.

Staff

MA 106 College Mathematics II

Algebraic functions, exponential and logarithmic functions, trigonometry, theory of equations, sequences and series. Prerequisite: MA 105 (College Mathematics I). Mathematics elective for non-science majors. 3 semester hours credit.

Staff

MA 107, 108 College Mathematics for Elementary Majors I-II

Theory of sets, relations and their properties, systems of numeration, axiomatic approach to the real number system through a study of the integers and rational numbers, elementary number theory, nonmetric and analytic geometry, groups, linear equations and inequalities, probability. Required of all Freshmen who are candidates for a degree in Elementary Education. 3 semester hours credit for each semester.

Staff

MA 110 Elementary Statistics

Variance, covariance, linear correlation, general regression lines, introduction to sampling theory; and the following distributions: normal, t, chi-square and F. Required of all Freshmen who are candidates for a degree in Health and Physical Education. 3 semester hours credit.

Assistant Professor Gleason

MA 201 Calculus with Analytic Geometry III

Methods of integration and applications, solid analytic geometry,

calculus of vectors in space, elements of infinite series, partial differentiation, multiple integration. Prerequisite: MA 102 (Calculus with Analytic Geometry II). 4 semester hours credit.

Associate Professor Bent
Mr. Lambiase

MA 202 Linear Algebra I

Vectors and analytic geometry of space, vector spaces, systems of linear equations, determinants, applications to geometry and analysis. 4 semester hours credit.

Associate Professor Bent
Mr. Lambiase

MA 220 Introduction to Calculus

Functions and limits, derivatives and antiderivatives, the definite integral, differentiation of algebraic and transcendental functions, applications. Prerequisite: MA 106 (College Mathematics II). Mathematics elective for non-science majors. 3 semester hours credit.

Mr. Sutherland

MA 301 Abstract Algebra I

Introduction to the theory of rings, integral domains and fields through a study of integers, rational numbers, real numbers, complex numbers and polynomials; elementary group theory. 3 semester hours credit.

Assistant Professor Simpson
Mr. Moore

MA 302 Abstract Algebra II

Group theory, linear groups, rings and ideals, extensions of rings and fields. Prerequisite: MA 301 (Abstract Algebra I). 3 semester hours credit.

Mr. Moore

MA 303 Number Theory

Development of the number system, the Euclidean Algorithm and its consequences, theory of congruences, number-theoretic functions, Diophantine equations, quadratic residues. 3 semester hours credit.

Assistant Professor Makokian

MA 304 Higher Geometry

Axiomatic systems, finite geometries, introduction to synthetic and analytic projective geometry, affine geometry, non-Euclidean geometry. 3 semester hours credit.

Mr. Sutherland

MA 308 Linear Algebra II

Linear transformations and matrices, bilinear and quadratic forms,

polynomial rings, characteristic values and vectors of linear transformations, similarity of matrices, applications. Prerequisite: MA 202 (Linear Algebra I). 3 semester hours credit. Staff

MA 316 Differential Equations

Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transform, applications. Prerequisite: MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit. Staff

MA 322 College Algebra for Elementary Majors

Elementary logic, the real and complex number systems, algebra of polynomials and algebraic fractions, exponents and radicals, inequalities, functions and their graphs, polynomial functions. Prerequisite: MA 108 (College Mathematics for Elementary Majors II). 3 semester hours credit. Associate Professor Mailloux
Associate Professor Abramson

MA 401 Advanced Calculus I

Fundamental theorems on limits and continuity, properties of derivatives, functions of several variables, partial derivatives, multiple integrals. Prerequisite: MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit. Assistant Professor Quindley

MA 402 Advanced Calculus II

Sequences, infinite series, power series and expansions of functions, vector calculus. Prerequisite: MA 401 (Advanced Calculus I). 4 periods weekly for one quarter. 2 semester hours credit. Associate Professor Bent

MA 403 Probability Theory

Permutations and combinations, calculus of probabilities, discrete and continuous random variables, expectation, elementary probability distributions, moment-generating functions, sample spaces. Prerequisite: MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit. Assistant Professor Makokian

MA 406 Theory of Sets and Elementary Logic

This course includes truth tables, rules of inference, method of proof, the algebra of sets and graphs of functions, cardinal numbers. 4 periods weekly for one quarter. 2 semester hours credit. Associate Professor Bent

MA 407 Topology

The elements of point set topology; closed sets and open sets in

metric spaces, continuous mappings, connection, separation theorems and compactness, applications. Prerequisite: MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit.
Staff

MA 408 History of Mathematics

The development of elementary mathematics from ancient to modern times. 4 periods weekly for one quarter. 2 semester hours credit.
Associate Professor Lemos

MA 412 Mathematical Statistics

Fundamental statistical methods, tests of significance and estimation based on large or small samples, simple correlation, linear regression, statistical inference, sequential analysis. Prerequisite: MA 403 (Probability Theory). 3 semester hours credit.

Staff

MA 415 Numerical Analysis

Solution of algebraic and transcendental equations: general iteration method, Newton-Raphson method. Approximation of functions and curve fitting: Lagrange interpolation formula, Newton's forward difference method, method of least squares, orthogonality. Numerical integration, Euler-Cauchy technique. Prerequisite: MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit.

Assistant Professor Scalisi

MA 416 Complex Function Theory

Analytic functions of a complex variable, differentiation and integration in the complex plane, Cauchy's theorems, infinite series, Laurent expansions, theory of residues. Prerequisite: MA 401 (Advanced Calculus I). 3 semester hours credit.

Staff

MA 421 Analytic Geometry for Elementary Majors

Trigonometric functions and analytic trigonometry, analytic geometry of the straight line and conic sections. 3 semester hours credit.

Staff

MA 422 Probability and Statistics for Elementary Majors

Permutations and combinations, finite sample spaces, random variables, binomial distributions, statistical applications. 3 semester hours credit.

Associate Professor Lemos

MA 425 Calculus for Elementary Majors

Graphs and curves, differentiation and integration of algebraic and transcendental functions, applications. 3 semester hours credit.

Associate Professor Bent

Assistant Professor Gleason

DEPARTMENT OF LIBRARY SCIENCE

Associate Professor Beatrice Bouchard, Chairman

Instructors: Olive Lee, Adeline Oakley

The Department of Library Science offers library instruction to all students during their freshman year, to upperclassmen in elective courses, to students majoring in education who wish to minor in library science and to prepare for certification as school librarians in Massachusetts. The requirements for Massachusetts School Librarian certification, effective May 1, 1963, are a bachelor's degree from a college approved by the Board of Education, including at least eighteen hours in Library Science Education. Courses indicated by asterisks are required for certification.

LI 102 Library Introduction

Freshmen are exposed to the Library during the first or the second semester of the academic year. One period a week is devoted to developing basic library skills, acquainting oneself with general reference literature, and meeting reference problems. Required of all freshmen; 1 one-hour period during one quarter; no credit.
Staff

LI 310 Books for Children (Children's Literature)*

This course covers the reading interests of children from pre-school years through the elementary grades with emphasis on: the contribution that reading can make toward the process of growing up; criteria for evaluation and analysis of children's books; types of books available today, considered in terms of the needs, interests, and abilities of children. Topics covered are: history of literature for children; illustrators; folk-tales; myths; modern fanciful tales; fiction; poetry; books in special fields, such as history, science, travel. 3 semester hours credit.

Associate Professor Bouchard
Mrs. Oakley

LI 320 Books for Young Adults (Literature for Young Adults)*

This course is a survey of literature for the adolescent, designed for junior and senior high school teachers and librarians, and includes a brief history of the development of this literature, evaluation of publishers, and psychology of the adolescent reader. 3 semester hours credit.

Mrs. Oakley

*LI 370 Reference Materials and Their Use**

This course outlines appropriate procedures in various disciplines. A bibliographic search diary gives practical application of tech-

niques using all the resources of the library. 3 semester hours credit.
Mrs. Oakley

L1 380 Seminar on the Book

This course traces the development of the written word from the earliest alphabet to today's computerized publishing. The history, art, and science of the book include field study of book production, manuscripts, rare books and bindings, and award winning books. 3 semester hours credit.
Associate Professor Bouchard
Mrs. Oakley

*L1 430 School Library Administration**

This course will consider the principles and practices in school library administration and service; the role of the library in the school's educational program; pupil instruction in library use; the planning and equipping of the library; and other aspects of library organization. 3 semester hours credit.
Associate Professor Bouchard

*L1 440 Cataloguing and Classification**

This course is an introduction to cataloguing and classification. Emphasis is on the Dewey Decimal classification and Sears Subject headings. Some time is given to the general processing of books. 3 semester hours credit.
Associate Professor Bouchard

L1 451 Storytelling

This course covers the theory and practice of the art of storytelling. Emphasis is on examination of the literary sources, experience in selection and presentation of stories, and techniques in cultivating appreciation of literature in children from kindergarten through grade 8. 3 semester hours credit.
Associate Professor Bouchard

DEPARTMENT OF MODERN FOREIGN LANGUAGES

Associate Professor Robert C. Arruda, Chairman

Associate Professors: Wayne M. Judah, Enrique Serrano

Assistant Professors: Robert A. Briggs, Anthony C. Cotugno,
Robert D. Dawley, Barbara H. George, Anthony M. Giannini,
Lenore M. Padula, Christiana P. Reordan, Mary C. Shapiro

Instructor: Armand E. Desautels

The Modern Foreign Languages Department offers to all A.B. students an opportunity to gain a practical working knowledge of one or more of six modern foreign languages by requiring them to take four semesters, or their equivalent, following their initial placement in the freshman year. Initial placement in and successful completion of the 181-182 level of foreign language study satisfies the graduation requirement in this area. Students may choose any of the six languages offered by the department unless otherwise restricted by the requirements of the department of their academic major. B.S. students are free to elect any language course as an elective or minor concentration provided they meet the basic requirements of the course in question.

The Department currently offers a French Major, with academic minors possible in French, German, or Spanish. The departmental major seeks to develop a fluent command of the four language skills, and a broad acquaintance with the salient characteristics of French literature and civilization. Two year sequences, totaling four courses for each language, also are offered in Italian, Portuguese and Russian.

A grade of C or above in LF 181-182 is required for continuation as a French Major. Normally, 26 semester hours are required for the major in French, following the LF 181-182 course. French majors are required to take the following courses, in sequence, unless otherwise arranged with the Department Chairman: 201, 252, 281, 301, 352, 381, 401, 451, and 481. Those who intend to enter secondary level teaching are required to take ED 324 (Teaching Language in the Secondary School). Language minors are required to take 18 semester hours, or their equivalent, following their initial language placement. The choice and sequence of such courses may be determined by consultation with the chairman of the department.

FRENCH

LF 101, 102 Elementary French

This course offers an audio-lingual approach to the structure of the French language. Emphasis will be on the mastery of correct pro-

nunciation and essential grammatical points to ensure basic oral and reading command of the language. 3 semester hours credit for each semester. Staff

LF 151, 152 Intermediate French

This course is a continuation of Elementary French with stress on essential grammatical points, oral work, and reading knowledge of the language. An introduction to some aspects of French civilization and culture will also be included. Prerequisite: LF 101-102, or its equivalent. 3 semester hours credit for each semester. Staff

LF 181, 182 Advanced French

A systematic review of French grammar along with more advanced study of the sounds of the language, this course also includes advanced reading selections with emphasis on French culture. Prerequisite: LF 151-152, or its equivalent. 3 semester hours credit for each semester. Staff

LF 201 French Literature of the Middle Ages

A survey of medieval French literature, including a study of cultural and literary innovations in France from the ninth through the fifteenth centuries; Serments de Strasbourg through François Villon. In general, readings will be in modern French prose translations. Prerequisite: LF 181-182, or its equivalent. 3 semester hours credit. Associate Professor Judah

LF 252 16th Century French Literature

A study of the development of ideas, particularly humanistic, in the works of Rabelais, the Pleiade and Montaigne. Prerequisite: LF 201, or its equivalent. 3 semester hours credit. Associate Professor Judah

LF 281 French Conversation and Civilization

This course is designed to improve oral expression and pronunciation. Discussion topics on aspects of French Civilization will be assigned, with a view to building vocabulary and to making applications of structures learned. There will also be assigned reading in French Civilization. Prerequisite: LF 181-182 or its equivalent. 3 semester hours credit. Mr. Desautels

LF 301 17th Century French Literature

The principal historical events and representative writers of France in the 17th century will be studied with the object of understanding Classicism as a literary movement. The course will deal with the

ideas and works of this period from Malherbe through Madame de Maintenon. Prerequisites: LF 201 and 252 or their equivalent. 3 semester hours credit. Associate Professor Arruda

LF 352 18th Century French Literature

The contributions of the Enlightenment and Encyclopedists up to the French Revolution will be the principal concerns of this course. Some of the authors to be studied are: Le Sage, Marivaux, Montesquieu, Voltaire, Rousseau, Beaumarchais, Chenier, and the Encyclopedists. Prerequisite: LF 301, or its equivalent. 3 semester hours credit. Associate Professor Arruda

LF 381 French Linguistics and Phonetics

In this course a linguistic approach to the study of the sounds of the French language is made with emphasis on a mastery of the elements of correct standard pronunciation. Prerequisite: LF 181-182 or its equivalent. 3 semester hours credit.

Assistant Professor Dawley

ED 324 Teaching Modern Foreign Languages in the Secondary School

A study of the principal methods of teaching modern foreign languages in the secondary school will be the essential concern of this course. Readings in texts required for the course will be supplemented by methods films. An opportunity will be provided to develop and present to a class materials for use at the secondary level. Required of all French majors with an Education minor. 3 semester hours credit. Assistant Professor Shapiro

LF 401 19th Century French Literature

Through representative works, this course will cover the entire 19th century with special emphasis on the principal literary movements: Romanticism, Realism (Parnassian Poets and Naturalism), and Symbolism. Prerequisite: LF 201, 252, 301, 352, or their equivalents. 3 periods weekly for 3 quarters. 4.5 semester hours credit. Associate Professor Judah

LF 451 20th Century French Literature

This course involves a study of modern French Literature from the authors of "national energy" at the turn of the century, to those of the present day. Important literary movements will be discussed and typical works of well-known authors will be read for class work and individual reports. Authors to be discussed are Bourget, France, Gide, Proust, Claudel, Romain, Sartre, Camus, and others. Prerequisite: LF 401, or taken simultaneously with LF 401. 3 periods weekly for three quarters; 4.5 semester hours credit for successful completion of LF 451 course.

Assistant Professor Giannini

LF 481 Advanced French Composition and Grammar Review

Primarily intended to provide senior French majors with an intensive and thorough review of French grammar and to develop their written command of the French language. Prerequisite: LF 181-182 or its equivalent. 3 semester hours credit.

Assistant Professor Dawley

GERMAN

LG 101, 102 Elementary German

This course offers an audio-lingual approach to the study of the German language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to ensure a basic oral and reading command of the language. 3 semester hours credit for each semester.

Staff

LG 151, 152 Intermediate German

This course includes a systematic review of basic German grammar and pronunciation. Graded reading selections will accompany the review to develop and improve the students' reading and conversational knowledge of the language. An introduction to some aspects of German culture will also be included. Prerequisite: LG 101-102, or its equivalent. 3 semester hours credit for each semester.

Staff

LG 181, 182 Advanced German

The course is designed to introduce the student to a more advanced level of the literature. Representative German authors will be read and discussed. Prerequisite: LG 151-152, or its equivalent. Required of all German minors. 3 semester hours credit for each semester.

Staff

LG 191, 192 Scientific German

This course involves a systematic review of basic German grammar. The emphasis will be on vocabulary building for the reading of scientific material in German. Required of science majors as a substitution for LG 151-152. Prerequisite: LG 101-102, or its equivalent. 3 semester hours credit for each semester.

Staff

LG 201, 202 Survey of German Literature

The course traces the development of German literature from its earliest beginnings to the present day. Representative works of the principal literary periods will be read and discussed. Prerequisite: LG 181, 182 or equivalent. Required of all German minors. 3 semester hours credit for each semester.

Staff

LG 282 *German Conversation and Civilization*

The course is designed to develop further the student's command of spoken German. Toward the attainment of this goal extensive oral practice will be offered, with a view to building vocabulary and to making application of structures learned. Discussion topics will center upon aspects of German civilization and culture. Prerequisite: LG 181-182, or its equivalent. 3 semester hours credit.
Staff

ITALIAN

LT 101, 102 *Elementary Italian*

This course is an aural-oral approach to the grammar of the Italian language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to insure a basic oral and reading command of the language. 3 semester hours credit for each semester.
Assistant Professor Padula

LT 151, 152 *Intermediate Italian*

A continuation of Elementary Italian with stress on essential grammatical features, oral work and reading development in the language. Prerequisite: LT 101-102 or its equivalent. 3 semester hours credit for each semester.
Assistant Professor Padula

PORTUGUESE

LP 101, 102 *Elementary Portuguese*

An introduction to the basic skills of reading and writing that will seek to develop the aural comprehension and the oral mastery of the Portuguese language. 3 semester hours credit for each semester.
Associate Professor Arruda

LP 151, 152 *Intermediate Portuguese*

This course will include a review of basic grammar and pronunciation before continuing with a more advanced study of these two aspects of the language. Reading, writing and oral proficiencies will be stressed. The history of Brazil and Portugal will also be studied. Prerequisite: Elementary Portuguese 101-102 or its equivalent. 3 semester hours credit for each semester.
Associate Professor Arruda

RUSSIAN

LR 101, 102 *Elementary Russian*

An introduction to contemporary spoken Russian. The purpose is to acquire a modest conversational and writing ability and skill in

reading Russian of average difficulty, such as short stories and newspaper articles. 3 semester hours credit for each semester.

Assistant Professor Reordan

LR 151, 152 Intermediate Russian

A continuation of Elementary Russian. Includes a systematic review of grammatical structure, an introduction to Russian literature, and progressive development of conversational and writing skills. Prerequisite: LR 102 (Elementary Russian), or its equivalent. 3 semester hours credit for each semester.

Assistant Professor Reordan

SPANISH

LS 101, 102 Elementary Spanish

An audio-lingual approach to the essentials of Spanish pronunciation and grammar. Reading and writing proficiency will be stressed. 3 semester hours credit for each semester.

Staff

LS 151, 152 Intermediate Spanish

This course is designed to follow the equivalent of one college year of audio-lingually oriented Spanish study. Its aims are fundamentally three: (1) to continue the development of the audio-lingual skills, (2) to increase the rate of development of reading skills and resources and (3) to provide some appreciation of and information about the Hispanic world. Prerequisite: LS101-102 or its equivalent. 3 semester hours credit for each semester.

Staff

LS 181, 182 Advanced Spanish

This course offers a more detailed study of important points of Spanish grammar with attention given to increasing vocabulary, correcting pronunciation, and improving audio-oral skills. More advanced reading selections and continued presentation of cultural aspects will provide opportunity for acquaintance with the Hispanic world. Prerequisites: LS 101-102 and LS 151-152 or their equivalent. 3 semester hours credit for each semester.

Staff

LS 201, 202 Survey of Spanish Literature

This course involves a survey of Hispanic literature from the earliest times to the present. Major literary movements, works, and authors will be stressed. Prerequisite: LS 181-182 or its equivalent, or permission of Department Chairman. Required of all Spanish minors. 3 semester hours credit for each semester.

Staff

LS 281 Spanish Conversation and Civilization

This course is designed to improve and increase oral proficiency in the Spanish language. Topics of discussion will be drawn from assigned readings of Spanish Civilization and colloquial aspects of the language. Prerequisite: LS 182 (Advanced Spanish), or its equivalent. 3 semester hours credit.

LS 282 Advanced Spanish Composition and Grammar Review

This course is designed to develop correct usage and style in Spanish composition. Selected literary passages will be used as a basis for analysis and example towards effective self-expression. Prerequisite: LS 182 (Advanced Spanish), or its equivalent. 3 semester hours credit.

DEPARTMENT OF MUSIC

Professor Kenneth W. Falkner, Chairman

Assistant Professors: Dorothy R. Ferry, Vincent H. Gannon, Marjorie E. Hayward

Instructors: M. Beth Ellis, Jacob Liberles

MU 101, 102 Instrumental Theory and Practice

This course includes fundamentals of musicianship, solfeggio, scales, intervals, triads, seventh chords, correlated rhythmic, melodic, and harmonic drill. Prerequisite: ability to play a musical instrument, and permission of the Instructor. 1 class hour and one 2-hour rehearsal per week; 1 semester hour credit for each semester.

Assistant Professor Gannon

MU 103 Vocal Chamber Music

Music from various periods of history are studied and performed. Open to interested singers upon approval of the instructor. 3 rehearsal hours per week; 1 semester hour credit.

Mr. Liberles

MU 110 Music Theory

Included in this course are the fundamentals of music, its structure and components, sight singing, the methods of teaching vocal music by rote, and basic harmony. 3 semester hours credit.

Assistant Professor Gannon

MU 113 Sight Singing

This course is designed for those Elementary Education Majors who have not had sufficient experience in syllabication and ear training to help them in this phase of teaching music on the elementary level. No credit. Hours to be arranged.

Miss Ellis

MU 120 Music in Physical Education

This course is designed primarily for Physical Education Majors and stresses the rhythmic content of music. Experiences include action songs, free rhythmic activity to instrumental music, the use of rhythm instruments, folk dances, and musical games. 2 semester hours credit.

Assistant Professor Hayward

MU 310 Music Skills

This course includes adaptation of music fundamentals as applied to vocal, rhythmic, and creative teaching on the elementary level. Prerequisite: MU 110 (Music Theory). 3 semester hours credit.

Assistant Professor Ferry

MU 320 History and Development of Music

Through the use of text-book and recordings, students are made aware of the various styles and forms of music from the baroque to the contemporary. This includes vocal and instrumental forms. The lives of the composers are studied in relation to their compositions. Emphasis is placed upon identifying their styles through listening. 3 semester hours credit.

Staff

MU 321 Music of the Renaissance and Baroque Periods

The chronological development of forms and styles in both sacred and secular music from the Middle Ages through the Baroque will be given special emphasis. Compositions will be studied through recordings. Reading assignments in reference books and standard histories will be given. 3 semester hours credit.

Assistant Professor Hayward

MU 322 Music of the Classical and Romantic Periods

The music of Haydn, Mozart, and Beethoven of the Classical era will be studied, as well as that of Schubert through Wagner in the Romantic era. The lives of the composers as well as the literature of their music will be approached through lectures and specific reading assignments. The compositions will be studied through recordings. 3 semester hours credit.

Mr. Liberles

MU 330 Basic Piano

This course includes fundamentals of instrumental technique, and concentrates on the ability to play simple accompaniments for vocal music on the elementary level. 3 semester hours credit.

Miss Ellis

MU 390 Music of the 20th Century

Important changes in contemporary music will be studied. Major musical forms written since 1900 will be analyzed and critical evaluation made of compositions of this period. Biographical background and historical influences will form part of the basis of study. This will be approached through the use of text-book and recordings. Prerequisite: MU 320 (History and Development of Music). 3 semester hours credit.

Professor Falkner

MU 400 Creative Activities in Elementary School Music

Practical experience will be offered in the following areas: free and directed response to rhythm; use of percussion, melody, and harmony instruments; piano chording; creative listening and singing activities. Prerequisite: MU 310 (Music Skills). 3 semester hours credit.

Assistant Professor Ferry

MU 403 Contemporary Practices

This course will offer a study of chromatic harmony and advanced modulation, atonality, polytonality, and analysis of the 20th century. 3 semester hours credit. Staff

MU 420 Vocal Ensemble Practices

This course offers choral practices, including voice training, experience in part singing, dynamics used in vocal ensemble, and choral conducting. 3 semester hours credit.

Mr. Liberles

MU 430 Harmony and Solfeggio

This course will include sight singing and ear training in all clefs; also construction of major and minor scales, triads and seventh chords in all positions; modulation, harmonic analysis, and keyboard drill. 3 semester hours credit.

Professor Falkner

DEPARTMENT OF PHILOSOPHY

Associate Professor Donald R. Dunbar, Chairman

Associate Professor: Joseph J. Corkery

Assistant Professor: Achille A. Joyal

PL 380 Introduction to General Philosophy

This course is an introduction to logical and critical reflection upon the opinion of philosophers concerning the meaning, terminology, and basic problems of philosophy, which should enable the student to begin structuring his own thinking. Required of all students. 3 semester hours credit.

Staff

PL 381 History of Ancient Philosophy

A critical study of Greek philosophers from Thales through Aristotle, concentrating on Plato and Aristotle. 3 semester hours credit.

Associate Professor Dunbar

PL 382 History of Modern Philosophy

A critical and selective study of modern philosophers. An introductory study of St. Thomas Aquinas; study of modern philosophers from Descartes through Kant. 3 semester hours credit. Prerequisite: PL 381.

Associate Professor Dunbar

PL 410 Existentialism

A critical study of the existentialist movement in philosophy, concentrating on the concepts of human existence, anxiety, freedom, decision, introduction to phenomenology. Readings from Kierkegaard, Heidegger, Sartre, Jaspers, Camus. 3 semester hours credit. Prerequisite: PL 380.

Associate Professor Dunbar

DEPARTMENT OF PHYSICS

Professor Richard F. Calusdian, Chairman

Professors: Felix S. Palubinskas, George A. Weygand

Associate Professor: Raymond L. Blanchard

Laboratory Instructor: Mrs. Marcia Webb

The Department of Physics offers a program leading to the degree of Bachelor of Arts in Physics. This program is sufficiently flexible to prepare a student for graduate school, industry or secondary school teaching. If a student minors in education, he will meet the Massachusetts State Certification requirements for teaching physics. One three credit mathematics course as an elective will allow the student to meet the Massachusetts State Certification requirements for teaching mathematics.

The following courses are required for a major in physics: PH 243, 244, 381, 387, 388, 389, 403 and MA 101, 102, 201, 316, CH 141, 142, or their equivalents.

PH 181, 182 Elements of Physics I-II

This course includes a study of mechanics, heat, sound, electricity, magnetism, optics and modern physics. PH 181 is prerequisite to PH 182. 2 lecture periods and 1 two-hour laboratory period per week. 3 semester hours credit per semester.

Professor Weygand

PH 200 Survey of Physics

The fundamental laws of physics are studied as an integrated system. 2 lecture periods and 1 two-hour laboratory per week. 3 semester hours credit.

Professor Weygand

PH 243, 244 General Physics I-II

This course is a calculus-based study of the phenomena of mechanics, heat, sound, electricity, magnetism and light. Prerequisite: MA 102 (Calculus with Analytic Geometry II). PH 243 is prerequisite to PH 244. 4 lecture periods and 1 three-hour laboratory period weekly. 4 semester hours credit for each semester.

Associate Professor Blanchard

PH 371 Biophysics, Macroscopic Aspects

Study of the structure, function and control of the skeletal, muscular, nervous, blood-vascular and body systems of living things, particularly the human being, on the macroscopic or large-system level. 3 lecture periods. One 3-hour laboratory period per week. This course may be taken with or without laboratory work. Prerequisites: Satisfactory completion of a college-level course in physics and in biology, or the consent of the instructor. 3 or 4 semester credits.

Professor Palubinskas

PH 372 Biophysics, Microscopic Aspects

Study of the structure, function and control of living things, particularly the human being, on the microscopic or molecular level. Prerequisites: Satisfactory completion of a college-level course

in physics and in biology, or the consent of the instructor. This course may be taken independently of PH 371. 3 semester hours credit.

Professor Palubinskas

PH 381 Thermal Physics

Thermodynamics, kinetic theory of gases, and statistical mechanics. Prerequisite: PH 244 (General Physics). 3 semester hours credit.

Professor Palubinskas

PH 385 Optics

After a careful study of geometric optics, the student will be introduced to the wave theory of interference, diffraction, polarization, and double refraction, and to the propagation of light in dispersion media. 3 lecture periods. One 3-hour laboratory per week. Optics may be taken with or without laboratory work. Prerequisite: PH 244 (General Physics). 3 or 4 semester hours credit.

Professor Palubinskas

PH 386 Nucleonics

The purpose of this course is to study nuclear instrumentation, the fission process and its applications, nuclear reactors, radiation shielding, radioactive waste disposal, and the application of nuclear technology to specific areas of the physical sciences. Prerequisite: PH 244 (General Physics). 3 lecture periods and 2 three-hour laboratory periods weekly for one quarter. 3 semester hours credit.

Professor Weygand

PH 387 Modern Physics

Theory of atomic and nuclear structure; elementary particles; relativity; and elementary quantum mechanics. Prerequisite: PH 244 (General Physics). 3 semester hours credit.

Professor Calusdian

PH 388 Electricity and Magnetism

Electrostatic and magnetic theory, direct and alternating current circuits, introduction to Maxwell's equations and radiation will be studied. Prerequisite: PH 244 (General Physics). 3 lecture periods and 1 three-hour laboratory period weekly. 4 semester hours credit.

Professor Palubinskas

PH 389 Mechanics

This course introduces the student to a vector treatment of mechanics; forces and moments; dynamics of point masses and rigid bodies; work and energy; impulse and momentum; small oscillation theory; translational and rotational motion of rigid bodies about fixed axis, and a fixed point; and Lagrange and Hamilton equations. Prerequisite: PH 243 (General Physics). 3 semester hours credit.

Professor Blanchard

PH 390 Research Problems in Physics

Special projects for advanced students desiring instruction in the methods of research in physics. Prerequisite: Permission of the department. Credits and hours to be arranged. Staff

PH 391 Solid State Physics

A study of the crystal structure of solids; lattice vibrations, thermal and electrical properties of solids; Band theory; semiconductors; and superconductivity. Prerequisite: PH 387 (Modern Physics). 3 semester hours credit. Staff

PH 392 Electronics

Fundamentals of semiconductor and vacuum tube electronics will be presented and supported with physical principles. Laboratory experiments will provide a working understanding of electronic measurements and basic electronic circuits. Prerequisite: PH 244 (General Physics). 3 lecture periods and two three-hour laboratory periods weekly for one quarter. 3 semester hours credit. Staff

PH 393 Theories of Modern Physics

This course develops the theories necessary in describing atomic and nuclear phenomena. Among the topics covered are: Maxwell's equations and the classical theory of radiation; the quantum theory of radiation; the special theory of relativity; elements of quantum mechanics; the theory of the nucleus and elementary particles. Prerequisite: PH 388 (Electricity and Magnetism), PH 389 (Mechanics); or permission of the Department. 3 semester hours credit. Professor Calusdian

PH 402 Quantum Mechanics

This course treats the physical and historical basis of quantum mechanics. Among the topics included are the wave nature of matter, the uncertainty principle, wave functions, operators, expectation values of dynamical observables, and the Schrodinger equation. These concepts will be applied to the electron, the hydrogen atom, multielectron atoms and radiation. Prerequisite: PH 387 (Modern Physics); or permission of the Instructor. 3 semester hours credit. Professor Calusdian

PH 395 History of Science

The development of scientific thought and scientific method from the Ionian Greeks to the contemporary era. 3 semester hours credit. Professor Weygand

PH 403 Mathematical Physics

The purpose of this course is to give the student the mathematical background necessary in solving the problems of modern physics and chemistry. Among the topics included are: Linear differential equations, Sturm-Liouville theory, Green's functions, Fourier series, Laplace transform, and orthogonal functions. Prerequisite: PH 244 (General Physics) and MA 201 (Calculus with Analytic Geometry III). 3 semester hours credit. Professor Calusdian

PH 398 Directed Study in Theoretical Physics

This course permits the advanced student to investigate special topics in theoretical physics not covered in the required curriculum. Among the topics the student may choose are: theory of relativity; quantum theory; electromagnetic theory; statistical mechanics, and mathematical physics. Prerequisite: permission of the Department. Credits and hours to be arranged. May be repeated for credit.

Staff

DEPARTMENT OF PSYCHOLOGY

Professor James Lester, Chairman

Professor: Iva Lutz

Associate Professors: Herbert J. Greenwald, Elizabeth Hollis

Assistant Professors: Louis Schippers, James Scroggs

Required for a Major in Psychology: 24-30 semester hours in Psychology, to include PY 200 (General Psychology), PY 229 (Abnormal Psychology), PY 230 (Social Psychology), and PY 231 (Psychology of Personality). Other required courses: MA 110 (Elementary Statistics), BI 110 (General Botany), and BI 120 (General Zoology).

PY 200 General Psychology

This is an introductory course planned to acquaint the student with the techniques of modern psychology, the structure of behavior, conditions and theories of learning, perception, emotion, motivation, personality development, and social influences. 3 semester hours credit.

Staff

PY 222 Psychology of Learning (Educational Psychology)

The purpose of the course is to provide an examination of the theoretical and research aspects of the learning process. Theories of learning will be examined in relation to experimental design and the learning situation. Prerequisite: PY 200 (General Psychology). 3 semester hours credit.

Assistant Professor Schippers

PY 224 Child Growth and Development

A study will be made of the growth and development of the child from birth to pre-adolescence. Attention will be focused on biological, psychological, and social factors as well as moral forces which influence child behavior. Prerequisite: PY 200 (General Psychology). 3 semester hours credit.

Staff

PY 226 Adolescent Psychology

A study will be made of the major theories related to pre-adolescent and adolescent development. Physical, mental, moral, emotional, personality, and social aspects will be considered. Prerequisite: PY 200 (General Psychology). 3 semester hours credit.

Assistant Professor Schippers

PY 227 Psychology of Exceptional Children

Identification of exceptional children and understanding of their

growth and development. Special techniques considered appropriate to the needs of such children will be treated. Emphasis will also be placed on the contribution the classroom teacher can make to the education and welfare of the mentally, emotionally, and physically handicapped child as well as of the academically talented. Prerequisite: PY 200 (General Psychology). 3 semester hours credit.

PY 228 The Psychology of Mental Retardation

The symptomatology and etiology of mental retardation. Tests and other diagnostic devices will be examined; etiologies such as cultural deprivation, maternal deprivation, and sensory deprivation will be considered as well as the traditional familial and organic causes; and therapeutic and remedial techniques will also be studied. Prerequisite: PY 200 (General Psychology). 3 semester hours credit. Assistant Professor Scroggs

PY 229 Abnormal Psychology

A systematic study of behavior pathology (physical illness, neuroses, psychoses, personality disorders, addiction, and acute and chronic brain disorders). Attention will be given to symptom description, etiology, prognosis, and prevention, and in general to the understanding and care of mental illness. Prerequisite: PY 200 (General Psychology). 3 semester hours credit. Staff

PY 230 Social Psychology

The individual in social situations: attitude formation and change, culture and society, language and communication, leadership and group dynamics, personality characteristics and interpersonal relationships, small group behavior. Prerequisite: PY 200 (General Psychology). 3 semester hours credit. Staff

PY 231 Psychology of Personality

Basic concepts in the field of personality, organized around such topics as motivation, personality structure and dynamics, personality development, assessment, and therapy. Problems and styles of adjustment will be considered. Prerequisite: PY 200 (General Psychology). 3 semester hours credit. Staff

PY 302 Psychological Theory

The purpose of the course is to examine the fundamental assumptions underlying the psychological enterprise and to study the issues which are the subjects of continuing debate in the field - e.g. causality, determinism, a variety of methodological approaches, the control of behavior, the nature of man. In the process, reference will frequently be made to various schools of thought, contemporary and historical, and to the history of psychology in general. Prerequisite: PY 200 (General Psychology). 3 semester hours credit. Assistant Professor Scroggs

PY 304 Attitude and Personality Measurement

Principles of construction of attitude scales and personality assessment techniques. Projective tests as well as the design and standardization of inventory-type techniques will be considered. Attention will be given to issues and controversies in measurement in Psychology. Prerequisite: PY 231 (Psychology of Personality) or PY 302 (Psychological Theory) and MA 110 (Elementary Statistics) or equivalent. 3 semester hours credit.

Associate Professor Greenwald

PY 308 Experimental Social Psychology

Recent research in social psychology, including development in methodology, theory, and research findings. Situational and individual difference approaches useful in testing theories and hypotheses and in resolving conflicting findings of previous research. Research project required of the student. Prerequisites: PY 230 (Social Psychology) and MA 110 (Elementary Statistics) or its equivalent.

Associate Professor Greenwald

PY 310 Seminar: Clinical Psychology

Survey of diagnostic and treatment procedures and resources in clinical guidance work with children and adults; professional duties and skills of the clinical psychologist. Prerequisite: PY 200 (General Psychology) and PY 229 (Abnormal Psychology). 3 semester hours credit.

Professor Lester

PY 312 Seminar: Attitude Change Research

Empirical research in persuasion; communicator credibility, opinion difference, commitment, one-sided (pro) and two-sided (pro and con) arguments, coercion, threat, emotional and rational arguments. Theories of attitude change, including dissonance theory, balance theory, congruity theory, and assimilation and contrast theory. Prerequisite: PY 200 (General Psychology) and PY 230 (Social Psychology). 3 semester hours credit.

Associate Professor Greenwald

PY 322 Seminar: Applied Social Psychology

Effective communication and better understanding of oneself; listening persuasion, conflict resolution, goals expectations, and self confidence. Contemporary problems such as dissent, minority problems. Guest speaker when possible. 3 semester hours credit.

Associate Professor Greenwald

PY 326 Seminar: Research Methods in the Behavioral Sciences

A study of the strategies of scientific research (hypothesis formation, experimental design, statistical analysis, data interpretation)

and the tactics of obtaining reliable information and minimizing artifact (survey methods, various kinds of interviews, individual-difference measures, controlled laboratory conditions). Offered only to Majors in Psychology or another Behavioral Science. Prerequisites: PY 200 (General Psychology) and MA 110 (Elementary Statistics) or its equivalent. 3 semester hours credit.

Associate Professor Greenwald

PY 400 Research Practicum

Behavioral Science individual or group research project. Prerequisite: PY 326 (Research Methods). Offered only to majors in Psychology. 3 semester hours credit. Staff

PY 402 Directed Studies (or Honor Thesis)

Supervised individual project (reading, discussion, and report) for students who have completed the major portion of their degree requirements. Offered only to Majors in Psychology. 3 semester hours credit. Staff

DEPARTMENT OF SOCIOLOGY

Professor Joseph G. Moore, Chairman

Professor: Morgan C. Brown

Associate Professor: Maude C. Greene

Assistant Professors: Abraham V. Thomas, Dorothy Wertz

Required for a Major in Sociology: SO 202 (Introduction to Sociology), SO 303 (The Family), SO 306 (Urban Sociology), and SO 400 (Seminar: Social Theory); plus six to eight other courses in Sociology.

Other Required Course: MA 110 (Elementary Statistics).

SO 202 Introduction to Sociology

Social structure, basic human institutions, analysis of social processes, major social forces. 3 semester hours credit.

Staff

SO 204 Sociology of Religion

Comparative study of religious systems and institutions, function and role of religion and the church in society; professional status, history and relations of the clergy. 3 semester hours credit.

Assistant Professor Thomas

SO 303 The Family

The family as a social institution in terms of its historical and cultural development. Analysis of psychological and social factors in contemporary family life. Prerequisite: SO 202 (Introduction to Sociology), or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit.

Professor Brown

Associate Professor Greene

SO 304 Social Stratification

Historical and contemporary examples of the range of stratification systems. Problems of class and caste, conflicts. Trends in class system and social mobility, with special attention given to similarities and differences of modern industrial societies. Prerequisite: SO 202 (Introduction to Sociology) or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit.

Associate Professor Greene

Assistant Professor Thomas

SO 305 Educational Sociology

This course will deal with educative factors in the social process. Some attention will be given to preliterate cultures and the functioning of the dominant institutions. Major emphasis, however,

will be focused upon the relation of stratification to education, and of education to horizontal and vertical mobility. Social class and ethnic backgrounds will be examined for their relationship to the functioning of schools. Recent, well-known empirical findings will be discussed.

Professor Brown

SO 306 Urban Sociology

A sociological and ecological analysis of the city in terms of urban institutional and personality patterns, folkways and mores. Ecological process and structure. The city as center of dominance over a trade area and hinterland. Prerequisite: SO 202 (Introduction to Sociology), or ES 353 (Urban Geography), or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit.

Professor Brown

Associate Professor Greene

SO 307 Urban Problems

Poverty, intergroup conflict, breakdown in education, crime, delinquency and urban riots will be examined. Special emphasis will be on new approaches in education in the city - decentralization, community control, relevant curriculum. This course is especially planned for students preparing for urban teaching. Experience in a problem area will be an integral part of the course. Prerequisite: SO 202 (Introduction to Sociology), or ES 353 (Urban Geography), or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit.

Associate Professor Greene

SO 309 Introduction to Social Welfare

Institutional analysis of social welfare, social agencies. Sociological aspects of social work as a profession. Prerequisite: SO 202 (Introduction to Sociology). 3 semester hours credit.

Associate Professor Greene

SO 310 Indian Cultural and Social Organization

A descriptive and analytical examination of societies of the Indian subcontinent dealing with their cultural histories, economic, social, political and religious institutions. Problems of cultural and social change. Prerequisite: SO 202 (Introduction to Sociology), or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology). 3 semester hours credit.

Assistant Professor Thomas

SO 312 Urban Minority Relations

A study of the relations between ethnic and racial groups in the United States, with particular attention to the Boston Irish, the Boston Italians, and the Negro-Americans. Concentrations will be upon the Negro in America and the problems of identity. Prerequisite:

SO 202 (Introduction to Sociology), or AN 201 (General Anthropology), or AN 202 (Cultural Anthropology), or ES 353 (Urban Geography). 3 semester hours credit. Professor Brown

SO 400 Seminar: Social Theory

The history of social theory and selected topics in modern social theories, analysis of alternative conceptual approaches and their methodological requirements. Prerequisite: Major in Sociology or Behavioral Sciences. 3 semester hours credit; to be offered in 1970-1971.

AN 402 Seminar: Research Methods in Sociology

Application of scientific methods to the analysis of social phenomena, methodological orientation in sociology, types of research procedure, nature of sociological variables. Prerequisite: Major in Sociology or Behavioral Sciences. 3 semester hours credit.

Staff

DEPARTMENT OF SPEECH AND THEATRE

Associate Professor Robert J. Barnett, Chairman

Associate Professors: Karin V. L. DuBin, Willis N. Pitts

Assistant Professors: Robert Friedman, Stephen Levine, Richard Warye

Instructors: Lee Anne Dunne, Susan J. Miskelly

The aims of a liberal education include the ability of the individual to communicate effectively and intelligently with other human beings as well as to gain the aesthetic satisfaction and cultural enrichment which comes from drama and the speech arts. The Speech and Theatre Department seeks to give to all students an acquaintance with drama and the other speech arts, in addition to giving opportunities for active expression through these communicative media.

The Speech and Theatre Department faculty administers an oral speech test to all in-coming freshmen. This test determines which students will enter the speech improvement program offered for the benefit of the students of Bridgewater State College. In addition, the College has established minimum voice, articulation, and fluency standards that must be met before a student is allowed to do student teaching. (See ST 001).

ST 001 Speech Improvement

This course is required of all students who do not meet the minimum speech requirements for entrance to the teacher-training program. It will be a laboratory experience offering students individual and group instruction. The student will be permitted to drop the course as soon as he meets the requirements. Hours to be arranged; no credit.

Associate Professor Pitts

Mrs. Dunne

ST 002 Remedial Speech

Remedial Speech is a course of practical exercises designed for students who desire to improve their speaking voice and for those with specific problems on which they wish to continue work. The purposes of the course are: 1) to develop individual awareness of poor habits in respiration, phonation, articulation and other vocal processes, and to replace these with more effective habits; 2) to enable the student to perceive, differentiate, and produce the standard sounds of good American speech; and 3) to increase the student's facility in reading and speaking. Hours to be arranged; no credit.

Mrs. Dunne

ST 200 Oral Communication I

In this course, ideas and values that are central to the total oral

communication process are introduced on both the practical and theoretical level. The student is helped to become a responsive and effective participant in conversation, discussion, speech-making, interviewing, and other forms of oral expression. 3 semester hours credit. Staff

ST 210 Communicative Reasoning

The purpose of this course is to train students in the intelligent and effective use of the basic tools of logic and reasoning. A thorough study of the forms and categories of argument and practice in the process of logical and purposeful thinking in everyday communication will be made. 3 semester hours credit. Staff

ST 220 Introduction to Speech and Theatre (Oral Communication)

This course introduces the student to the area of Speech and Theatre. It offers an overview of each of the three areas of the Speech and Theatre Major: 1) Speech; 2) Drama; 3) Speech Therapy. It introduces the student to professions in each of these and related areas through class work, reading, discussion, laboratory and field work. It introduces the student to the curriculum and the co-curricular program that lies ahead. It prepares the student to take initial steps in planning his own program of study. 3 semester hours credit. Staff

ST 290 Speech Improvement in the Classroom

The course is designed to help prospective teachers: 1) identify children's speech and hearing problems, and understand the needs of these speech-handicapped children; 2) recognize opportunities in everyday classroom activities that provide help and guidance for these children; and 3) provide supplementary activities that stimulate and improve children's speech. 3 semester hours credit. Associate Professor Pitts

ST 291 Phonetics

This course deals with a study of phonetic theory as a direct and efficient approach to speech improvement. For the purpose of the course, the International Phonetic Alphabet, recognized as the standard medium for the symbolization of speech sounds, is used as a basis for the study of the speech act. The aim is to consider techniques for individual speech personality improvement, and to suggest practices designed to improve vocal skills in the classroom. 3 semester hours credit. Associate Professor Pitts

ED 326 Methods of Speech Instruction

This course offers a practical approach to the analysis and evaluation of the problems, objectives, and organizational techniques necessary to successful speech instruction. Special emphasis will

be given to the factors affecting the teaching of oral communication at all levels. 3 semester hours credit. Staff

ST 330 Creative Dramatics

This course is designed to give training and methodology in developing the child's creative faculties through the use of dramatic play. Students will participate in classroom exercises, and work in laboratory sessions with children in order to put into practice the concepts of preparation and evaluation learned through class discussion and lecture. 3 semester hours credit.

Associate Professor Barnett

ST 340 Oral Interpretation of Literature

This course will offer opportunity for the study and practice of various styles of presentation in the oral interpretation of prose and poetry. A detailed evaluation and analysis of that material which is suitable for preparation and delivery to the class will be made. This course is especially recommended for those students with a definite interest in literature and the humanities. Open to all juniors and seniors. 3 semester hours credit.

Associate Professor DuBin

ST 350 Public Speaking

This course provides for intensive study, evaluation and analysis of speech preparation with frequent presentations of various forms of public address. Attention will be given to speaking occasions, situations, and audience analysis. Open to all juniors and seniors. 3 semester hours credit.

Miss Miskelly

ST 360 Group Discussion

Through frequent practice and intensive study the student is trained in the principles and methods of interpersonal communication. The functional aspects of group membership, discussion, logic, and leadership will be given particular attention. Open to all juniors and seniors. 3 semester hours credit.

Miss Miskelly

ST 361 Parliamentary Procedure

The purposes of this course will be: (1) to acquaint the student with the principles of Parliamentary Procedure as used to facilitate conduct of business in clubs, organizations and governments throughout the Western World; and (2) to afford the student practice in the use of Parliamentary Procedure. In the process of his study, the student will also become acquainted with the structure of the organization as an instrument of democracy. The methods used to fulfill these

purposes will include discussions of theory and involvement in simulated organizational situations. The work of the course will be based upon Roberts' Rules of Order, Revised. 3 semester hours credit. Staff

ST 370 Play Production

This course is designed to treat the various aspects of producing plays. It deals with such problems as selecting a script, casting, directing, lighting, costuming and designing, and building scenery. Practical work in the above activities will be required of all students. 3 semester hours credit.

Associate Professor Barnett

ST 380 Stagecraft

This course will offer the opportunity for the study of the principles of stagecraft. Students will also receive practical experience in the design, construction, painting, rigging and handling of stage scenery. In addition, lighting the stage and prop construction will be studied to a limited degree. Practical work in all areas will be required on a laboratory basis. Prerequisite: ST 370 (Play Production). 3 semester hours credit. Assistant Professor Warye

ST 390 Principles of Acting

To develop an appreciation of and skill in the fundamentals of acting. Classroom exercises, improvisations, and scenes are aimed at providing the beginner with a basic technique which can be applied to the creation of any role. 3 semester hours credit.

Assistant Professor Friedman

ST 395 Principles of Directing

To provide the basic knowledge and techniques the beginning director will need in order to interpret a play to an audience. Among the areas covered are play analysis, composition, movement, characterization, and rehearsal techniques. 3 semester hours credit.

Assistant Professor Friedman

ST 400 Creative Techniques for Teaching

In this course, specifically designed for seniors, the student is encouraged to develop creative modes of oral expression. The student learns to handle the more complex and creative modes of oral communication, i.e., role playing, creative dramatics, masks, puppetry, choral speaking, story telling and story reading. Prerequisite: ST 200 Oral Communication I). 3 semester hours credit.

Staff

ST 410 Voice and Diction

The purpose of this course is to develop the voice and diction of

each student as an effective means of conveying his personality and ideas. It includes the physics and physiology of the vocal mechanism and general exercises designed to improve respiration, phonation, and articulation. Particular emphasis is placed upon the ability to perceive, differentiate, and produce the standard sounds of good American speech. Attention is given to the vocal requirements of students in different fields and each student is helped to set up a program of exercises best suited to his needs. Prerequisite: ST 200 (Oral Communication I). 3 semester hours credit.

Mrs. Dunne

ST 420 Children's Theatre

This course is designed as a survey of the history and objectives of theatre for the child audience and examines some of the special techniques of acting, directing, and producing plays for children. Attention is given to play selection and adaptation of children's literature for dramatic presentation. Students will participate in the production of a play for children which will be presented on campus and at nearby schools. Prerequisite: ST 370 (Play Production). 3 semester hours credit. Assistant Professor Warye

ST 430 Theatre History

Theatre History traces the major forms of dramatic expression in Asia, Europe and America from the prehistoric pagan rite to the greatest periods of theatre marked by men like Aeschylus, Shakespeare, Moliere and Ibsen, and culminating in an examination of present-day Theatre of the Absurd. 3 semester hours credit.

Assistant Professor Levine

ST 460 Argumentation and Debate

The essentials of stating and supporting particular propositions from the standpoint of argumentative theory and of the various systems of formal debate are considered in this course. Guided practice is offered in the preparation of such speeches as individuals and as members of teams debating in various styles.

3 semester hours credit.

Miss Miskelly

ST 465 Communicative Theory

This course is concerned with the consideration of various theories currently held concerning the problems posed by human communication--the mechanism through which human relations exist and develop--or the elements of the communication process: the communicator, message, communicatee, or the environment in which a message exchange takes place. 3 semester hours credit.

Associate Professor DuBin

ST 471 Playwriting

The primary purpose of this course is to deepen the student's ap-

preciation of the nature of the play as an art form. The student will seek fulfillment of these purposes through the analysis of plays of various types and through practice in writing either a one-act play or one act of a long play with an outline of the remaining acts. 3 semester hours credit. Associate Professor DuBin

ST 485 Introduction to Television

A course considering television as a medium of communication in society and in the school. In addition to studying the historical development of broadcasting and the status of the medium today, the student actively participates in developing performance skills which may be utilized in future encounters with television as an educator, civic leader, or professional broadcaster. 3 semester hours credit. Assistant Professor Warye

ST 486 Directing for Television

A consideration of the practices and skills required in the artistic production of units or programs for television presentation. 3 semester hours credit. Assistant Professor Warye

ST 490 Speech Science

Study of the anatomical and neurological processes of speech are presented. Some consideration of the physical basis of speech is also involved. The linguistic and semantic bases of speech are briefly examined. 3 semester hours credit.

Associate Professor Pitts

ST 491 Clinical Practice

Practice in application of therapy diagnoses and techniques with children in a clinic situation. A consideration of tests used in evaluation, plus some attention to the philosophy of speech therapy techniques. Lectures and practice assignment and supervision. 3 semester hours credit. Staff

ST 493 Audiology

The student is introduced to the physics of sound with emphasis on transmission and measurement of sound to the ear. Anatomy, physiology, and neurology of the ear as well as pathological conditions will be described. The student will also learn basic skills in using the audiometer in the testing for hearing loss. 3 semester hours credit. Mrs. Dunne

ST 499 Oral Communication Seminar

The students from all these special interest areas will meet with staff members to study, research, analyze and discuss their investigations and practical work, both academic and creative, in areas of particular interest to the students. 3 semester hours credit. Staff

INTERDEPARTMENTAL PROGRAMS IN NATURAL SCIENCES

The following interdepartmental programs are offered within the Division of Natural Sciences and Mathematics.

CHEMISTRY-GEOLOGY MAJOR

A major in Chemistry-Geology is offered jointly by the Departments of Chemistry and Earth Sciences and Geography. This program is designed to prepare students for graduate school and professional employment in geochemistry and geology. Careers in these fields may involve petroleum, mineral and groundwater exploration or research in geochronology, mineralogy, crystallography and oceanography. This major is particularly suited to students interested in chemical or geological oceanography. The program is a flexible one in that it allows the student to specialize in a variety of areas by suitable choice of electives.

Chemistry-Geology majors are required to take the following courses: CH 141, 142, (or CH 131, 132) ES 181, 192, 372. In addition to the above requirements, majors must elect a minimum of two additional semesters of chemistry, two semesters of physics, and two semesters of mathematics. In addition to these electives the student must elect a minimum of six hours of chemistry, earth sciences, mathematics or physics which have been approved by the student's advisor.

PRE-MEDICAL AND PRE-DENTAL PROGRAMS

Medicine

Although medical schools do not require a major in a particular discipline they expect applicants to have achieved high academic standing in the fields of biology, chemistry, physics, mathematics, English, and foreign languages. Most students who plan to enter medicine as a profession will find it advisable to major in either biology or chemistry. A student who is interested in medicine should consult both his major advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year.

Dentistry

While some dental schools admit applicants after three years of college work, most prefer students with a bachelor's degree. As in medicine, there is no requirement for a major in a particular discipline. Most students who plan to enter dentistry as a profession will find it advisable to major in either biology or chemistry. Applicants for dental school should meet the requirements of the major in a given department and must also satisfy the requirements in biology, chemistry, physics, and English as set by each dental school. A student who is interested in dentistry should consult both his major

advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year.

PRE-MEDICAL AND PRE-DENTAL COMMITTEE

Dr. Wilmon Blackmar Chipman, Chairman
Dr. Kenneth Jesse Howe
Dr. Walter A. Morin
Dr. Henry Owen Daley

PROGRAMS IN OCEANOGRAPHY

Programs in oceanography are offered as a cooperative effort of all departments within the Division of Natural Sciences and Mathematics. These programs are designed to prepare students for graduate school or professional employment in oceanography.

Most graduate schools of oceanography require an undergraduate major in biology, chemistry, earth sciences, or physics. All students interested in an oceanography program should major in one of these disciplines. Graduate schools of oceanography expect students to include the following courses in their undergraduate programs; Calculus I and II, Inorganic Chemistry and Qualitative Analysis or General Chemistry, General Physics or Elements of Physics, Quantitative Analysis, General Botany, General Zoology, Physical Geology, Introduction to Oceanography I and II.

These courses together with one of the majors indicated above provide a basic foundation for further study in one of the four principal branches of oceanography, i.e., biological oceanography, chemical oceanography, geological oceanography, and physical oceanography. Additional courses in related areas may be selected by the student with the approval of his major advisor. A student who is interested in oceanography should consult both his major advisor and a member of the Advisory Committee on Oceanography during his freshman year.

ADVISORY COMMITTEE ON OCEANOGRAPHY

Dr. Elizabeth Fahey Cirino, Chairman
Dr. Robert Francis Boutilier

THE CAMPUS

Bridgewater State College is located just east of Central Square in Bridgewater, Massachusetts, off Routes 18, 28 and 104. At present the 160 acre campus contains 18 buildings with a Student Union Building to be completed by September, 1970. A library and an educational facilities building are in the planning stages.

Gates House, on the corner of Grove and Cedar Streets, has been the home of presidents of the college since 1933. It is now the home of President and Mrs. Adrian Rondileau.

The Martha M. Burnell School, on Grove Street facing the quadrangle, is the laboratory school for Bridgewater students pursuing the Bachelor of Science in Education curriculum. The school provides four grades and a kindergarten where juniors do their student teaching under supervision. On the ground floor is a lounge where teachers may relax during their free time. The laboratory school is often visited by classes from the college, who observe demonstration lessons taught by the Burnell School faculty.

Also on Grove Street, next to the Burnell School is Woodward Hall, named for Eliza Woodward, a beloved teacher who served the college for many years. This large dormitory houses over two hundred women students. It has three floors containing eighty-five double and triple rooms. On the first floor are located the office of the Assistant to the Dean of Women, a music room, and a reception room. On the ground floor is a kitchenette, ironing room, recreation room, laundry room, and study hall.

At the corner of Summer and Grove Streets is the Men's Dormitory, a modern brick building which accommodates about one hundred young men. Between the Men's Dormitory and Park Avenue is the area called Lower Campus, which contains the College tennis courts. In this area will be the new student Union Building.

The first building on Park Avenue is the S. Elizabeth Pope Hall, named for a former Dean of Women. This dormitory contains all double rooms and houses one hundred and fourteen women students. The college infirmary is on the first floor of this building, which also contains a modern reception area for entertaining guests. On the ground floor are laundry facilities, a combination lounge and study hall, and a cafeteria.

Next to Pope Hall is the Stevens Greenhouse and Botanical Gardens, located on land donated by Mrs. Elizabeth Stevens. Many rare and interesting plants are found in the greenhouse. The surrounding gardens contain a small goldfish pond and picnic area for use by campus organizations.

Next to the Greenhouse is the Marshall Conant Science Building, a three-story structure which contains classrooms, laboratories, a lecture hall, and private offices for members of the science faculties.

Also on Park Avenue is the John J. Kelly Gymnasium, which contains two gyms, the swimming pool, showers and locker space for both men and women students, classrooms, and the offices of the faculty of the departments of Health and Physical Education. Next to the Gymnasium is a large parking lot for commuting students.

On School Street facing the quadrangle is the Clement C. Maxwell Library, which contains sixty thousand volumes. There are thirty-five student carrels, reference material, twelve listening rooms, a reading room which also houses reference material, and a lounge for the faculty.

At the corner of the quadrangle on the corner of Summer and School streets is Tillinghast Hall, named for Nicholas Tillinghast, the first principal of the Normal School. The rooms in this women's dormitory are singles, with the exception of two suites. The spacious reception room on the first floor is used by the students for entertaining guests and for teas, meetings, and social functions of many kinds. On the same floor is found the college dining hall for dormitory students who live on the lower campus. On the ground floor is a reception room for students, the student post office, laundry facilities, some faculty offices, a new music room, and a suite which houses the Alumni Office.

September, 1967 saw the opening of the new high-rise residences on Great Hill. Three hundred women and three hundred men occupy these modern dormitories. The lower floor of each building contains reception rooms, a conference room, a music room, a post office, a laundry room and a vending machine room. A cafeteria for the use of both men and women is located in the men's residence hall.

The central building of the campus is Boyden Hall, also known as the "Ad Building." All administrative offices are found here, as well as many faculty offices and classrooms. Facilities for the use of commuting students, lunch rooms, and locker rooms are located on the ground floor. The Horace Mann Auditorium, in which plays, concerts, lectures, and convocations are held, is in the northeast section of the building.

THE CLEMENT C. MAXWELL LIBRARY

General Information:

The Clement C. Maxwell Library contains over 65,000 volumes and subscribes to over 800 periodicals and a dozen newspapers. Pamphlet and vertical file collections are maintained and there are microfilm facilities. A photocopying machine is available for reproduction of material.

The library is on an open-shelf basis and uses the library of Congress System of Classification. Reference books and periodicals are located in the reading room on the library's main floor. These materials do not circulate. The major part of the collection is on the ground floor and on the balcony above the main reading room. These materials are available for borrowing.

The card catalog is located in the entrance lobby of the building. A collection of books for children and young adults is housed in a third floor classroom and an adjoining resource room houses a collection of texts. In most cases there are two copies of each text, one of which circulates.

The directory at the library entrance shows the location of material on each floor. For more detailed information, students should consult the card catalog in the lobby. Call numbers of books are posted at the end of each stack range. If more assistance is needed in finding books, staff members are glad to assist students.

Interlibrary Loans:

The Clement C. Maxwell Library has joined with the libraries of Southeastern Massachusetts University, Wheaton College, and Stonehill College in a cooperative arrangement whereby students of any of the institutions may have borrowing privileges at each of the participating libraries.

Further information on borrowing procedures is available at the Maxwell Library circulation desk.

Borrowing Policy:

Books, except those on reserve, may be borrowed for a four week period. They may not be renewed. As many books as needed may be taken out at one time, provided this does not inconvenience other library users. The library reserves the right to call in books at any time.

Pamphlets and pictures may be borrowed for a two-week period.

Students in training may borrow books for their entire training period subject to recall if necessary. Books and other library materials used during the training period must be returned to the library on or before the second Monday following the student's return to campus, otherwise fines will begin.

No books may be borrowed without presentation of the student's identification card.

Books not found on shelves may be requested at the main circulation desk.

Reserved Books:

A limited number of extensively used books are kept at the circulation desk. They have a long blue card instead of the regular book card and circulate either overnight or for a seven-day period.

Overnight reserves may be borrowed after 1 P.M. on any school day. They are due before 10 A.M. the following day. These overnight reserves may be signed for in advance from Monday through Friday at the circulation desk. The sign-up book is ready Monday morning for the rest of the week.

One copy of each reserve title is kept in the library at all times. These reserves may be used in the library during class periods. They are signed for at the desk and returned at the end of the period.

Student Cooperative Fines System:

Regular library materials---

5¢ per school day overdue to a maximum of \$3.00

Overnight reserves---

25¢ per hour, beginning at 10 A.M., \$1.00 per day to a maximum of \$3.00

All other reserves---

\$1.00 per day to a maximum of \$3.00

The maximum fine is \$3.00 on one book.

Lost or damaged books must be paid for.

Requests for Additions to the Library:

Book request cards are available at the circulation desk for students wishing to request addition of titles to the library. As much information as possible should be supplied as to title, author, publisher, and edition of book desired, and the student's name should be signed to the request.

Library Hours:

While college classes are in session, library hours are as follows:

Monday through Thursday	8:00 A.M. - 10:30 P.M.
Friday	8:00 A.M. - 5:00 P.M.
Saturday	9:00 A.M. - 4:00 P.M.
Sunday	7:00 P.M. - 10:00 P.M.

This schedule is curtailed during vacations and announcements of changes in hours is posted in advance on the library bulletin board.

GENERAL REGULATIONS

Attendance

1. Faculty members keep accurate attendance records for all students since these are needed for many purposes both legal and advisory. It is the responsibility of each faculty member at the beginning of each course to explain to the students his policy on attendance, particularly what he considers as excessive absence.
2. Probationary students and first semester freshmen are allowed no unexcused absences.
3. When the faculty member considers a student's absence excessive, the case is reported to the Division of Student Personnel. Conferences are held with the student to determine the cause of absences. Reports of these conferences are sent to the professor.
4. If the student involved is on probation, a report of these conferences are presented to the Academic Dean and the Academic Standing Committee. No student is denied examination privileges. However, an absence report may be the determining factor in the separation of a borderline student from the College.
5. Make-up programs for periodic tests or quizzes are determined by each department. The privilege of making up mid-year or final examinations is granted only upon the receipt of a doctor's certificate or other valid excuses by the Academic Dean, the Division of Student Personnel, or the instructor.
6. The only excusing cause of absence from a semester examination is serious illness of a student or a member of his immediate family. All absence excuses must be documented and submitted to the Academic Dean for approval.
7. Education Students in Laboratory Schools
 - a. Juniors should report cases of unavoidable absence to the principal of the laboratory school before the beginning of the morning session.
 - b. Seniors doing their student teaching are to observe the rules which govern the attendance of teachers in the school system to which they are appointed. They must ask permission of the supervisors before obtaining permission of the superintendent of schools or the principal in cases of desired absence. In case of unavoidable absence, the principal or the superintendent of schools should be notified before the morning session begins. They must notify promptly the supervisors from the College in case of absence or a "no school" session on days of the week assigned for supervision.

8. Student Responsibilities

a. Freshmen and Students on Academic Probation

All freshmen, and all upperclass students on academic probation must file an absence slip for every absence in the Office of Student Personnel before returning to classes.

b. Responsibility of All Students for Class Work and Assigned Papers

1. It is the responsibility of all students to fulfill the requirements of all courses in which they are enrolled, including specifically making up any class work they have missed because of absences.

2. An absence on the day a paper or project is due does not relieve the student of his obligations. The paper must be postmarked on the day due or passed in by a classmate.

c. Responsibility of All Students for Examinations

1. Permission for a make-up quiz or make-up examination will normally be granted at the discretion of the instructor only upon receipt of a legitimate excuse for the absence from such a quiz or examination.

2. If a student misses a quiz or an examination it is his responsibility to furnish the instructor with sufficient evidence for his absence to avoid receiving a failing grade for that examination or quiz.

d. Absences Because of College Obligations

Absence for official college business, sports, conferences, etc. will be permitted, but responsibilities referred to in Section 2 and Section 3 above are in effect.

e. Student Responsibility in Case of Faculty Lateness or Absence

If an instructor does not appear for any scheduled class the students are expected to wait ten minutes, sign an attendance list and elect one member of the class to submit this list to the Chairman of the Department.

The Use of Alcoholic Beverages and Illegal Drugs

As far as the College is concerned, the use or possession of alcoholic beverages or illegal drugs on the campus is sufficient reason for expulsion from the College.

Social Conduct

The administration reserves the right to exclude from College activities any student or guest of a student whose conduct does not conform to Bridgewater standards.

Suspension and Dismissal of a Student from the College

Suspension is considered a very serious matter and it follows the following procedure:

- (1) First, a recommendation for suspension for disciplinary reasons must come to the President from the Deans of the College.
- (2) Secondly, the case is then reviewed by the President who forms an independent judgment on the basis of all the facts available.

Under normal circumstances, a student would not be recommended for suspension unless there had been a previous instance of misconduct which had placed him on disciplinary probation, or if he had acted in such a manner as to threaten the security and safety of other students. It would be only in such instances of very threatening behavior that he would be requested to leave at the first instance of misconduct. In all other cases he would be put on disciplinary probation and his parents warned. Certainly no one would be dismissed without serious cause. If the reasons for dismissal were not heinously offensive, the student would be allowed to withdraw from the College and have an opportunity to enter another institution of learning where hopefully he might achieve a very successful career.

Policies Concerning Car Use and Car Parking

The following traffic policies were adopted to facilitate vehicular movement and provide the safety of all persons using the campus of the College.

I. Campus Parking

A. Where students may park

1. Dormitory students living on the lower campus must park their cars directly behind the Burnell School Playground.
2. Dormitory students living on Great Hill must park their cars in the Great Hill parking lot.
3. Junior and Senior commuting students must park their cars in the large gymnasium parking lot.

4. Freshmen and Sophomore commuting students must park their cars in the Great Hill parking lot.
- B. Areas reserved for parking by faculty and other members of the College staff.
 1. The area behind Boyden Hall is reserved for the administration, faculty, and staff who have offices in that building.
 2. Cedar Street (behind Boyden Hall)
 3. At the side of Woodward Hall
 - a. Grove Street to hydrant (reserved for Burnell School Faculty)
 - b. From the hydrant to the old boiler room is reserved for non-teaching personnel.
 4. Area behind the Men's Dormitory, Pope Hall, and Tillinghast Hall is reserved for personnel involved with these buildings.
 5. The area adjacent to the Library is reserved for the faculty and staff who have offices in that building.
 6. The area to the right of the gymnasium is reserved for faculty who have offices in that building.
 7. The area behind the Science Building has been assigned and is reserved for administration, faculty and staff who have offices in that building.

II. Violations and Penalties

- A. First violation - \$1.00 fine
- B. Second and subsequent violations - \$5.00 fine per violation.
- C. Any student receiving a ticket recording a parking violation must report to the Office of Traffic Control which is located in the Building to the rear of Woodward Hall. The office is open from 11:00 A.M. until 1:00 P.M. - Monday through Friday. The office will be closed during vacation periods.
- D. Fines are due one week after the violation has been recorded.
- E. Failure to pay these fines will result in the withholding of all grades, credits and transcripts.

- F. Freshmen dormitory students are not allowed to have motor vehicles on campus.

III. Registration

- A. Students must register every motor vehicle used for transportation to and from the campus.
- B. A fee of \$1.00 is charged for registration of each vehicle and a decal is issued for each vehicle.
- C. Decals issued during September of 1969 are valid until September 1, 1970.
- D. All decals issued prior to September 1, 1969 have expired.
- E. Decals issued between September 1, 1969 and August 31, 1970 expire September 1, 1970.
- F. Decals are to be placed on the vent window, on the driver's side of the car.
- G. The letter "R" designating residence student, should be placed on the vent window, driver's side.
- H. Decals are to be placed in a conspicuous spot on all motor bikes.

STUDENT SERVICES

Students have problems and needs that often require special forms of help or personal guidance at different stages of college experience. Among these are questions and concerns about one's educational program and academic achievement, housing, finances, health, social adjustment, part-time work, and post-college study or employment.

To assist students in making adjustments, wise decisions, and intelligent plans, the College has provided professional staff services in the major areas of student needs.

ORIENTATION

During a freshmen convocation in the summer and during registration week, the orientation of students new to Bridgewater State College begins. Students are then advised on their academic program, and given opportunities to meet each other and the faculty, they learn about the philosophy and resources of the College, and about the standards, requirements, policies, and traditions of the College. The program includes assemblies, discussion meetings, activities of various kinds, and get-togethers in informal settings,

planned and carried out by committees composed of students, faculty and administrative staff.

An orientation course for all freshmen is required with class meetings once a week throughout the first semester of the college year.

GENERAL COUNSELING

The faculty-student relationship is the center of college counseling, for it is the faculty who are best qualified to guide the student in his academic and professional growth. Each freshman is assigned to a faculty adviser. Additional guidance by a professional counselor may be arranged through the office of the Dean of Students.

ACADEMIC COUNSELING

The Faculty Committee on Academic Standing also offers counseling services. It interviews students whose academic standing is unsatisfactory at the end of each semester to determine the probability of success if the student is allowed to continue. To those students dismissed for academic reasons the Committee frequently offers suggestions for other academic or vocational preparation.

RELIGIOUS COUNSELING

From its beginning Bridgewater State College has been committed to a positive appreciation for the religious values in both our history and contemporary culture. To emphasize the affirmative role of religion in the life and thought of this academic community the Christian Fellowship, Menorah Club, and Newman Club have been formed to minister to those of the Protestant, Jewish and Catholic faiths. A Christian Fellowship House and a Newman Chapel and Center are located near the campus. Two chaplains for Catholic students and one for Protestant students have offices on campus and meet frequently with students in individual conferences and in groups to provide additional counseling services.

CULTURAL AND SOCIAL EVENTS

The opportunities provided for cultural and social experiences, through formal and informal group activities, include musicales, art exhibits, international displays, forums, socials, informal dances and formal balls, coffee hours with staff and faculty, and residence hall functions. The Assembly Committee of the Student Cooperative Association sponsors a program series each year. Student, faculty, administrative and alumni groups also sponsor lectures, forums, and discussion groups throughout the year. The Bridgewater Celebrities Series brings internationally recognized artists to the campus several times each year.

PHYSICAL EDUCATION AND RECREATION

The physical education and recreational program of the college provides a wide range of activity for students. Objectives of the program are to promote qualities of leadership and sportsmanship; to aid students in their emotional, physical, and social development; and to provide opportunities for the development of individual physical skills. Programs of intramural sports for men are conducted in badminton, basketball, softball, tennis, touch football, track and field, and swimming. Recreational and intramural activities for women include badminton, basketball, bowling, dancing, field hockey, golf, lacrosse, riding, and swimming. Varsity teams in lacrosse, basketball, field hockey, softball, tennis, and bowling compete with teams from other women's colleges in eastern New England.

ATHLETICS

Intercollegiate athletics play an important part in the College's educational objectives. Sports are vital and beneficial activities, creating proper balance between mental and physical training, providing relaxation and enjoyment for student participants and student spectators, developing a spirit of unity and high morale in the student body, and encouraging cooperative group relationships. Bridgewater participates in intercollegiate football, cross country, basketball, baseball, tennis, track and golf.

HEALTH SERVICE

A hospital suite is located on the first floor of the S. Elizabeth Pope Hall. The services of a nurse are available to all students of the college twenty-four hours each day, seven days a week. A doctor is on duty three days a week for four hours each day.

PLACEMENT SERVICE

The Placement Service assists in referring seniors to employers for full-time job opportunities, and in placing alumni in their major fields of concentration. In addition, on-campus interviews are arranged for students in their senior year. These services are available without charge to all students and alumni who register at the Placement Office.

STUDENT EMPLOYMENT

Opportunities for part-time employment are available for students who wish to earn money while studying at the college. Applications should be made to the Dean of Women or the Dean of Men. Assignments are made in accordance with the needs, abilities, and interests of the students.

STUDENT BOOKSTORE

The Student Bookstore, Inc. is located in the basement of Boyden Hall. The store has a drug and cosmetic rack, as well as supplies, souvenirs, textbooks, and leisure reading material.

The Bookstore is open weekdays from 8:15 A.M. to 4:00 P.M., and Monday through Thursday from 4:30 P.M. to 8:30 P.M.

Books may be paid for by cash or check. All checks should be made payable to: Student Bookstore, Inc., with the student's home address appearing on the check. The store does not handle used books. Books may be returned to the store for the following reasons only:

- 1) Book is defective;
- 2) Course is dropped or cancelled before the date specified by the Bookstore Manager.

Returned books must be unmarked, in saleable condition, and accompanied by Bookstore sales receipt.

STUDENT LIFE

Student life at Bridgewater State College is a composite of a variety of activities and organizations meeting a wide range of student needs and interests and adding enjoyment and meaning to living and learning experiences. Through out-of-class participation in intellectual, social, religious, cultural, and recreational functions, students develop understandings and skills that enrich and extend classroom learnings and form an integral part of the college program. In sharing membership and leadership roles in these activities and organizations, they find opportunities to gain competencies that have direct application to class assignments, to their professional training, and to community situations.

Since Bridgewater State College believes that student participation in campus life is an important part of the educational process, it encourages student government at various levels and in all student activities. The STUDENT COOPERATIVE ASSOCIATION STUDENT COUNCIL aims to involve the student in a responsible way in the life of the college community, to serve as the means for the free expression of student opinion regarding college affairs as well as local, national, and international issues relevant to the student-citizen, and to unite the student community through helping students feel a part of the educational process.

STUDENT COOPERATIVE ASSOCIATION

This organization, through elected representatives, serves as the voice of student opinion and the body of student action. Annual dues support the student government and its activities. With payment of these dues, students are admitted to all athletic events at a reduced rate, receive library privileges, pay their class dues, receive copies of the college newspaper and a copy of the yearbook, ALPHA, at the end of their college career. The work of the entire association with its many committees is guided by the Student Council.

STUDENT COUNCIL

This is composed of the officers of the SCA together with class presidents and three elected delegates-at-large from each class. It aids in regulating all matters pertaining to student life which do not fall under the jurisdiction of the faculty, in fostering the spirit of unity and co-operation among the students, and in maintaining the high standards of Bridgewater State College. This group aims to initiate the best movements of student collegiate life on the campus, and to improve and broaden life in the college by making available to the student the best that is possible in cultural and educational achievement.

The committees of the SCA in conjunction with the Student Council are:

Finance Committee

The function of this committee is to receive the budgets of the organizations requesting funds from the SCA and to recommend the final appropriation for that organization.

Assembly Committee

The function of this committee is to bring to the college speakers, outstanding in their particular fields, who will contribute to the cultural growth of the students.

Dining Hall Committee

This committee makes and enforces rules governing dining hall etiquette and meets with the college business manager and the boarding hall manager to discuss matters of student concern regarding the food service.

Elections Committee

This committee assists freshmen conducting their meetings, taking charge of their elections, and planning their class party. For the rest of the year its duties are to plan the order of and direct the elections of student officers.

Handbook Committee

The chief duty of this group is to prepare and publish a handbook containing information on rules, customs, and traditions of the College.

Library Committee

This committee assists in the maintenance of an efficient library system to meet the needs of a rapidly expanding college. It also collects fines and assessments which are used only for the upkeep and repair of books.

Public Relations Committee

This committee works with the Instructional Media Department of the College in promoting good will between the college and the communities it serves.

Social Activities Committee

This group plans the social calendar of the year, cooperating with club presidents and leaders so that any conflicts in social affairs may be avoided. It also serves in an advisory capacity for those students who are planning dances, teas, and other social functions.

Delegates-at-Large

The three delegates which each class elects are the connecting links between the student body and the administrative officers of the college through the Student Council. They report to their classes on the Council meetings and act as official representatives on all matters relating to the functions of their classes.

STUDENT ORGANIZATIONS

ALPHA, The College Yearbook

Alpha is the tangible record of the activities of the graduating class in particular, and of the college in general. The staff is se-

lected on a basis of leadership qualities, personality, scholarship, and an ability and interest in the production of ALPHA.

Aquabrytes Club

This club is open to all students of the college interested in synchronized swimming.

Assembly Committee

The function of the Assembly Committee is to bring to the college speakers, outstanding in their particular fields, who will contribute to the cultural growth of the students. Pure entertainment, as such, is not the goal of the committee; rather it is to give something of a more lasting value to the student body.

A.C.E.I.

A student branch of the Association for Childhood Education International, this professional club is concerned with children from the ages of six to twelve. The main purpose of this organization is to learn to make the community a better place for all children.

Audio-Visual Club

This is a campus service organization, which aims to make available technical assistance, aids, and equipment when needed by the faculty, campus organizations, and student teachers, and to train club members and other interested students in the proper care and use of the A-V aids and equipment.

The Comment

This, the official college newspaper, is issued weekly throughout the year. Staff membership is open to any student wishing to participate. Promotion to the editorial board is based on a person's merit and length of service to the paper, according to the board's discretion.

Chameleon Conversation Coffee House

This organization sponsors weekly programs by local artists to stimulate free discussion.

Choral Society

This society consists of those students interested in singing and in good music. Students must pass a voice test to obtain membership in the club.

Christian Fellowship

Christian Fellowship is the federation of Protestant students on campus. Its purpose is to stimulate study, thought, and action in an attempt to learn more completely the meaning of Christianity; to meet the personal needs of the members; and to share together in the total task of Christianity throughout the world.

Council for Exceptional Children

The principal purpose of C.E.C. is to advance the education of exceptional children and youth. The major goals are: professional growth, professional standards, services to exceptional children, legislative involvement, and public awareness and acceptance of exceptional children.

Day Student Organization

This organization was formed for the purpose of regulating matters pertaining to the life of the day students at Bridgewater, and for the promotion of fellowship among its members.

Debate Club

The club's purpose is to stimulate progress in and to further the interests of inter-collegiate speech activities. Membership is open to all students, and training and practice are available for all interested.

Dormitory Council

This was organized for the purpose of providing harmonious and pleasant dormitory life, and is responsible for making and requiring observance of the rules governing the general conduct of dormitory students.

Drama Club

The purpose of the club is to train all interested students in the various techniques of the stage; to develop ability to speak before an audience; and to provide entertainment for the college at large.

Earth Science and Geography Club

The purpose of the Earth Science and Geography Club is to encourage students to give informal expression to their interests in the earth sciences and geography through field trips, sponsorship of lectures, and the development of extra-curricular projects. Membership is open to all students.

French Club

Le Cercle Francais is an organization for those who are interested in France and French culture. This group also sponsors a Mardi Gras celebration every other year in cooperation with other organizations on campus.

Herodotus Club

The purpose of this club is to create an interest and understanding of history throughout the student body. Membership is open to all students of the college.

International Relations Club

An organization of students interested in international affairs, this club plans programs to bring outstanding speakers to the campus. Each year a delegation from this group participates in the United Nations Student Assembly in New York.

Kappa Delta Pi Honor Society

A national society in education, this gives recognition to the highest professional, intellectual, and personal standards. Membership is open to a limited number of those seniors and juniors who are in the upper quintile of their respective classes, and who meet the society's standards in regard to personality and contributions to the college.

Library Club

This group has as its prime objective, the maintenance of an efficient library system to meet the needs of a rapidly expanding college. This committee, working with the school librarians, consists of those students who have expressed a desire to work together with this objective in mind.

Mathematics Club

The objectives of this club shall be to afford an opportunity for students of mathematics and science to become better acquainted, to secure the intellectual stimulation that arises from professional association, to secure experience in preparing and presenting technical material before mathematical audiences, to foster a professional spirit among its members, and to instill a professional pride in mathematics.

Men's Athletic Association

The purpose of the association is to carry out the men's athletic program throughout the year, including both intramural and varsity sports.

Menorah Club

Menorah Club was formed primarily to promote interest in Jewish culture, ideals, and problems. Speakers, group discussions, and social affairs are included in the program, which is open to all members of the college.

Modern Dance Club

This organization invites all women students to participate in the use of the dance for creative composition and expression.

Newman Club

The particular aim of this club is to provide for a union of those students of the Catholic faith whose ideals and principles are similar to those of Cardinal Newman. The club's aims are religious, educational, and social.

Phi Pi Delta Fraternity

This brotherhood offers opportunities for personality and character development, leadership and professional training, social and professional contacts, scholarship and personal aid. It introduces its members to new interests and evokes the feeling of brotherhood through cooperative activities and responsibilities.

P.E.M. Club

This is a professional organization in the field of physical education and health, made up of all members of the Physical Education Department, to advance the standards of teaching and leadership; to stimulate a wide and intelligent interest in health, physical education, and recreation; and to promote social and professional cooperation among students, faculty, and alumni of the college.

Roots and Wings

A literary magazine published semi-annually.

S.M.E.A.

The Student Massachusetts Education Association is a professional organization open to Juniors and Seniors who are enrolled in a teacher education program, and provides opportunities for personal and professional growth; development of leadership skills; understanding of the history, ethics, and progress of education at state and national levels; and participation in professional activities at local, state, and national levels, especially integrating programs of local associations and student education associations.

Verse Choir

The Verse Choir is a group of students selected by the Speech Department who produce several programs each year for the college. They also participate in intercollegiate verse speaking contests.

Veterans Club

This is an informal organization whose purpose is to work for the welfare of veterans on campus and to keep members informed about national programs of benefit to veterans.

Visual Arts Club

Its purpose is to stimulate an art-consciousness among students on campus. There is opportunity in the club to develop artistic talent, or simply to foster an interest in or love for art. Membership is open to all students.

Women's Glee Club

The Glee Club meets one evening a week to study a wide variety of literature. Performances include the Christmas and Spring Concerts. Membership is open to all female members of the college.

Women's Recreation Association

This is the second largest organization on campus, and one of the most active. It serves the women of the college by providing for them opportunities for wholesome physical recreation, either as participants or as leaders. The association sponsors many social events throughout the year, as well as a variety of intramural activities. It also provides opportunities for the students to participate in intercollegiate activities, such as basketball, bowling, field hockey, lacrosse, and softball.

HONORS AND AWARDS

To give recognition and prestige to student achievements in campus activities and to emphasize intellectual attainments, Bridgewater State College offers many honors and awards annually in May at Honors Day ceremonies.

Gladys L. Allen Scholarship

Awarded to the girl in the Junior Class of the State College at Bridgewater who has the best record in student teaching in grade two at the Burnell School.

Area Club Awards

Fall River

Haverhill-Merrimack Valley

New Bedford

These awards are given to the highest ranking senior from each of the above areas.

Art Key

Sponsored by Rosa Silva '21, former art supervisor at the New Bedford High School and presented to the Senior who has been outstanding in the field of art and art teaching.

The Mary Isabel Caldwell Award

Initiated by friends of Professor Caldwell and presented for the first time in May, 1967, is given to the Junior health and physical education major student, for the highest academic average for the first two and one-half years at Bridgewater State College.

Julia Carter Award

Sponsored by friends of Julia C. Carter, former Librarian. Presented to a student who has shown unselfish devotion to the well being and progress of the College Library.

Centennial Class Award in History

Sponsored by Dr. Jordan Fiore, '40, in honor of the Class of 1940. Awarded to the highest ranking senior student in the field of History.

Chorale Society Awards

This award is given to the seniors who have been active participants of at least one choral group, demonstrating loyalty, dependability, and unselfish cooperation during membership.

Class of 1953 Award

Sponsored by the Class of 1953. Awarded to that senior who has never been elected to a major office, who is always loyal to his friends, his college and his responsibilities and who has demonstrated that he can follow as well as lead.

Delta Kappa Gamma Scholarship

A full year's tuition (\$200.00) given to an underclasswoman stu-

dent who excels in scholarship and loyalty to responsibility.

Elementary Key Award

Given by Laura Fernandes Nelson, '19, to the outstanding elementary major who typifies success in student teaching, leadership, and professional potential.

Faculty Wives Scholarship

Sponsored by the Faculty Wives Association and awarded to a junior girl who has been outstanding in scholarship and in cultural activities of the college.

Robert V. Fay Scholarship

In memory of Robert Fay given by friends of Alpha Upsilon Fraternity to a Junior athlete who demonstrated athletic excellence, sportmanship and eagerness to serve his teammates.

The Judith Glynn Memorial Drama Award

The Judith Glynn Memorial Drama Club Award is given in honor of Miss Judith Glynn, a graduate of the Class of 1963, who was an active member of the Drama Club for four years. Miss Glynn was killed in an automobile accident in October of 1963. This award is presented to a member of the Drama Club who has stimulated an interest in drama and its allied art forms, who has shown a willingness to accept any role or task assigned and has not attempted to gain notoriety or applause but to further the progress of the Bridgewater State Drama Club.

Herodotus Club Award

Presented by the Herodotus Club to a senior who has shown excellent achievement in History and the Social Sciences.

M. Katharine Hill Prize

Sponsored by the Hill Memorial Fund in memory of a beloved and gifted teacher, Mary Katharine Hill. Awarded to a senior whose interest in the field of literature has been outstanding.

Hill-Ross Award

Sponsored by the Class of 1935 to perpetuate the memory of Lt. Paul D. Hill and Capt. Donald E. Ross. Awarded to the outstanding member of the graduating class, who, by high standards of achievement and character, scholarship and participation in activities, has contributed most to the life of the College.

Kappa Delta Pi Scholarship

Awarded to the member of the senior class who has achieved the highest academic rank at the end of the junior year.

T. Leonard Kelly Award in Physical Science

Awarded in honor of T. Leonard Kelly, Chairman of the Department of Physical Science at Bridgewater from 1942-1965, and presented by the department to that senior major in the Physical

Sciences who has maintained the highest scholastic average throughout his undergraduate study at Bridgewater.

Iva Lutz Award

Awarded to a deserving sophomore or junior by Mrs. Henry A. Alves to honor her former teacher and adviser, Professor Iva Lutz.

Anna McGrory Award

Sponsored by the friends of Anna McGrory '40 who died at the age of 27 years. Presented to a girl in the graduating class who has not held a major office in the College but who has the following qualities: loyalty, faith, devotion, service and a sense of humor.

Men's Athletic Association Award

Sponsored by the Men's Athletic Association and awarded to a senior man for sportsmanship, scholarship, and athletic improvement.

Dr. Mary J. Moriarty Award

Presented annually by the Physical Education Alumni Association to a member of the graduating class of the Physical Education Major department. It is given for noteworthy scholarship, distinguished leadership, and outstanding service to both the physical education department and the College.

Omega Iota Phi Sorority Scholarship

Sponsored by the Omega Iota Phi Sorority. Awarded to the most deserving underclasswoman who has maintained a high degree of self reliance and seriousness of purpose.

Physical Education Key

Sponsored by Myra I. Luce '21. Awarded to the Physical Education student who has achieved the most over a four year period in teaching ability, attitude toward teaching, professional appearance, skills, scholarship and activities.

S. Elizabeth Pope Award

Sponsored by Dr. Ellen Shea '35 in honor of S. Elizabeth Pope, former Dean of Women. Presented to that senior girl elected by the women of her class who has given of herself most generously in service to this college and in the promotion of good fellowship among her classmates.

Louis Carmel Stearns Award in Botany

Sponsored by the Alumni Association. Presented to that student who has demonstrated the greatest proficiency in the Botanical Sciences.

Outstanding Student Librarian Award

Given by the Student Cooperative Association Library Committee

and the Library Staff, to the student librarian of the year who has distinguished herself in "Librarianship."

Le Cercle Français Award

Awarded to a senior student for excellence in French and outstanding service to the French Club.

Dr. William G. Vinal Award

The Biology Club Award has been named in honor of Dr. William Vinal and is to be awarded for excellence in the field of Zoology for a 4-year period.

Martin T. Rizzo Memorial Award

Presented to a student interested in but not necessarily participating in athletics, a student universally popular with his fellow students, a student who clearly demonstrates a determination to be academically successful.

Edith G. Shoolman Award

Sponsored by Edith G. Shoolman, Class of 1925, and awarded to that senior who has shown creative excellence in the study of English.

Student Cooperative Association Leadership Award

Sponsored by the SCA, and selected by the underclass members of the Student Council. This award is given to the senior who has shown outstanding leadership in school and college activities.

Visual Arts Awards

Given by Professor Doris Tebbetts to the seniors contributing most consistently, loyally, and effectively to the enrichment of campus culture through the Visual Arts. The Visual Arts Awards are presented to two seniors this year in recognition of their service to the Arts.

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Bridgewater State College holds membership in the New England Association of Colleges and Secondary Schools as a Multi-Purpose College.

